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ON THE MORTALITY AT GLASGOW, AND ON THE INCREASING MORTALITY IN ENGLAND.

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I HAVE recently collected some highly-valuable materials relating to the mortality prevailing in one of the largest British towns,—*Glasgow*. These materials are far superior to any previously existing in Britain; the information is supplied in a perfect form, and the accuracy of detail is unimpeachable. The results deduced from these materials are deserving of the best attention of the medical public, as they will be found to affect the pecuniary as well as the scientific interests of the profession. The new information is applicable to a period ending with the year 1835, which is five years later than the termination of the observation for all England published last year. The Glasgow agrees with the English observation, in the indication of a progressive increase in the mortality. I believe it to be a fact sufficiently well established, that the quantity of sickness suffered by any population bears a fixed proportion to the mortality. If, as seems probable, the mortality in England is now increasing at the rate of ten per cent. every ten years, it may be presumed that the quantity of sickness is increasing at the same rate. The population of England being increasing at the rate of sixteen per cent every ten years, it follows, that the quantity of sickness in a given parish is increasing at the rate of twenty-six per cent every ten years. Nevertheless the attempt is now being made, to diminish the remuneration of medical men, whilst the amount of professional labour required is so rapidly increasing.

The existence of the present new materials appears to be hardly known to any portion of the British public, and the inhabitants of Glasgow themselves appear to be unconscious of the great superiority of their "observation" over every other made in Britain. The observation extends over the fifteen years 1821-35, and is complete in all the particulars requisite for the accurate determination of the absolute mortality at every age during any part of the observed period. There are two points in which the Glasgow materials excell all others. First, in supplying an authenticated list of all the deaths with their ages, whilst in England we have only the deaths entered in the parish registers, with little security against omissions through negligence. The other point of superiority consists in a second (voluntary) enumeration of the living and *their ages* made in the year 1831. In England we have only one such enumeration made in the year 1821.

The town council of Glasgow, being sensible of the high importance of an accurate return of deaths, have organized a system for the attainment of the desired object, by the foundation of a "Committee on Churchyards." The following extract, from a work of Dr. Cleland published in 1832, will show how great a degree of confidence may be reposed in these returns. "At the end of the year, the wardens of the various burying-grounds furnish me with an abstract from their books, and it is from a combination of these abstracts that I draw up the annual mortality bills. From my official situation, I am enabled to state, that the books of the churchyard wardens are kept with such perfect accuracy, that every reliance may be placed on the number of burials in the city and suburbs." The deaths and their ages during each of the fifteen years, have been obligingly communicated to me by Henry Paul, Esq., the successor of Dr. Cleland, and the present Convener of the Committee on Churchyards. I subjoin the whole of the materials from which my results have been deduced. The juxta-position of the materials and the results ought never to be omitted in inquiries of the present nature. It is to be hoped that the reader will not find the general rule applicable in the present instance, but I cannot help stating as the fruit of long experience, that the publication of the materials is most commonly fatal to the argument and the conclusions of the investigator.

TABLE, *showing the number of Deaths of each Sex, in Thirteen Intervals of Age, as they occurred in Glasgow during Three successive Quinquennial Periods, ending with* 1835.

Between Ages.	Males Dying in Five Years.			Females Dying in Five Years.		
	1821-25	1826-30	1831-35	1821-25	1826-30	1831-36
0— 1	2232	2326	3599	1989	2082	2951
1— 2	1478	1642	2277	1332	1528	1951
2— 5	1014	1225	2204	939	1123	1899
5—10	632	667	929	587	622	887
10—20	594	731	945	647	646	875
20—30	696	944	1232	735	854	1402
30—40	594	842	1412	672	847	1409
40—50	659	936	1448	662	908	1390
50—60	625	943	1210	692	962	1369
60—70	679	918	1215	710	986	1302
70—80	600	798	1011	656	833	1023
80—90	241	359	408	281	402	468
Above 90	50	63	56	62	59	78
All ages	10,094	12,394	17,946	9964	11,852	17,004
30—60	1878	2721	4070	2026	2717	4168
Above 60	1570	2138	2690	1709	2280	2871
Still-born.	834	1050	1596	679	957	1388

TABLE, *showing in each of Eleven Intervals of Age, the numbers of each Sex ascertained to be Living in Glasgow, according to two Enumerations made in the middle of the Years* 1821 *and* 1831.

Between Ages.	Males living in		Females living in	
	1821	1831	1821	1831
0— 5	10,905	15,422	10,345	14,855
5—10	8901	13,127	8613	12,580
10—20	15,305	18,980	17,305	22,976
20—30	10,509	15,177	15,403	23,008
30—40	8082	12,179	10,134	14,240
40—50	6925	8685	7719	9329
50—60	4147	5549	4945	6099
60—70	2198	3228	2898	3692
70—80	912	1090	1196	1502
80—90	219	260	325	385
Above 90	16	27	41	36
All ages	68,119	93,724	78,924	108,702
30—60	19,154	26,413	22,798	29,668
Above 60	3345	4605	4460	5615

In order to deduce the mortality at each age during each of the three quinquennial periods, it was necessary to calculate the numbers living at each interval of age, in the middles of the years 1823, 28, and 33, from the numbers ascertained to be living in the middles of the years 1821 and 1831. The principle which I have adopted is not new, although it has never before been similarly applied from want of the requisite materials. If the number living *at all ages* at the beginning and at the end of a period of ten years is known, the number living at any specified intermediate epoch

may be calculated. I have merely extended this universally-acknowledged principle, and assumed, that if the number living at *any interval* of age be ascertained by two enumerations in 1821 and 1831, then the number of living at this interval of age at any intermediate time is also known. I have not thought it necessary to give the calculated numbers living, because the reader may easily deduce them for himself, and because he may very easily satisfy himself as to the general correctness of the results. In order to obtain the average annual mortality for the ten years 1821-30, he has only to divide the deaths at each age during the ten years, by half the sum of the living at the same age according to the two enumerations. And in order to deduce the average annual mortality during the ten years 1826-35, he has only to divide the deaths during those ten years by the numbers at corresponding ages ascertained to be living in 1831.

The most remarkable feature presented by the present Glasgow observation, is the rapid and uniform increase in the mortality of adults. Between the ages of thirty and

TABLE, *showing for each of the above three quinquennial periods, the average Annual Deaths which occurred in each interval of Age, out of* 100 *living at the same interval; also showing the Annual Mortality for the Four last Years, exclusive of the Year of Cholera.*

Between Ages.	Males.			Females.			Third Period exclusive of Year of Cholera.	
	1821-25	1826-30	1831-35	1821-25	1826-30	1831-35	Males.	Females.
0— 5	8.08	7.47	9.78	7.66	7.10	8.52	9.51	8.29
5—10	1.31	1.14	1.31	1.26	1.11	1.31	1.26	1.24
10—20	.74	.82	.95	.71	.61	.72	.93	.67
20—30	1.23	1.39	1.51	.88	.84	1.12	1.46	.92
30—40	1.35	1.56	2.14	1.24	1.32	1.85	1.77	1.48
40—50	1.82	2.31	3.19	1.65	2.06	2.87	2.60	2.21
50—60	2.84	3.71	4.11	2.68	3.36	4.30	3.29	3.51
60—70	5.72	6.38	6.97	4.67	5.74	6.72	6.00	5.50
70—80	12.70	15.45	17.90	10.48	11.88	13.02	15.54	11.02
80—90	21.27	29.07	30.33	16.72	21.97	23.50	28.34	22.72
Above 90	56.29	54.60	37.36	31.04	31.52	44.48	36.69	42.76
All Ages.	2.78	2.91	3.59	2.37	2.40	2.93	3.31	2.62
30—60	1.84	2.27	2.89	1.69	1.98	2.66	2.35	2.12
Above 60	8.81	10.23	10.95	7.32	8.70	9.77	9.60	8.37

sixty, the mortality of each sex increased twenty per cent every five years. This is the case after deducting ten per cent from the actual average of the five years 1831-35, as the effect of the cholera visitation in 1832. The mortality in 1832, between the ages of thirty and sixty, really raised the average twenty per cent, but it may be judged probable that the half of this excess consisted of weak lives, who would have been carried off by other diseases during the succeeding three years. A comparison of the mortality suffered in the first two quinquennial periods will serve to show how little knowledge can be obtained as to the real state of a population, when the *ages* of the living and dying are not distinguished. During the five years 1826-30, the mortality at all ages was nearly equal to the mortality which had prevailed during the preceding five years, and yet the mortality between the ages of thirty and sixty had increased nearly twenty per cent during the latter period. The increased mortality of adults had been masked by a diminished mortality among children.

In Glasgow, the mortality under the age of five years had been progressively diminishing until the year 1830, since which time it has rapidly increased. This fact is supported by the observation on London, published in THE LANCET of Jan. 30, wherein I have shown that the mortality, under the age of five years, had been uniformly diminishing during a period of 100 years ending with 1829. The increasing mortality of adults in Glasgow is supported by the population returns for all England, at least between the ages of fifteen and twenty-five years. If it be assumed, which is highly probable, that the number of females living at this interval bore the same proportion to the total English population throughout the eighteen years 1813-30, the mortality between the ages of fifteen and twenty-five has been increasing at the rate of twelve and a half per cent every ten years. The relative mortality at this inter-

val of age, during the three continuous periods, 1813-17, 1818-25, and 1826-30, was represented by the numbers 100, 109, and 116, respectively.

The increase on the aggregate mortality of the English population has been considerably less than that just stated, as may be seen from the following table. From the year 1780 to the year 1815 the number of deaths had been stationary, although the population had been increasing; consequently, the mortality at all ages had been diminishing at the same rate as the population had been increasing. From the year 1800 to the year 1815 the mortality was diminishing at the rate of fourteen per cent every ten years. From 1815 to 1830 the mortality at all ages of the English population increased at the rate of eight per cent every ten years. The present increasing mortality of the English population appears to be the natural consequence of the previously diminishing rate, because there is no ground for supposing the existence of any circumstances favourable to the permanent increase of the vitality of the population. A diminished mortality may coexist with a diminished vitality; an inferior class of lives well supplied with food may suffer a lower rate of mortality, than a class of the soundest lives deficiently supplied with food. In one important respect at least, the circumstances of the English population are decidedly more unfavourable to vitality than the circumstances of any other existing population. The proportion of town population is much greater in England than in any other country, and the fact of towns being extremely unfavourable to vitality has always been acknowledged. The agricultural portion of any population invariably suffers the lowest mortality; in England this portion constitutes only one-third of the total population, in most other countries this favoured class amounts to two-thirds of the total population. Notwithstanding appearances, the English population returns do not supply the slightest evidence of any increased longevity in any class of the population, from birth progressively to the end of life. The present appearances result from a low mortality of young lives combined with a low mortality among old lives, but we have no ground for supposing such a state of things to be applicable to the *same* lives. In the following table is indicated the progressive variation in the mortality of the total population of England and Wales, during six quinquennial periods, commencing with the year 1801, the time when the first enumeration of the living was made. The relative numbers result immediately from the ascertained fact, that the population increased at the rate of fourteen per cent from 1801 to 1811, and at the rate of fifteen and a half per cent for each of the two succeeding periods of ten years. The relative numbers will represent the absolute annual mortality of both sexes, when multiplied by 2.04, which is the minimum annual mortality, or that experienced during the five years 1816-20.

TABLE, *showing for all England and Wales, the progressive Variation on the Mortality at all Ages, during Six continuous Quinquennial Periods ending with* 1830.

Periods of Five Years.	Total Registered Burials of both Sexes.	Relative Mortality.
1801— 5	970,468	114
1806—10	979,721	108
1811—15	969,233	100
1816—20	1,040,765	100
1821—25	1,169,245	104
1826—30	1,293,662	108
Thirty years	6,423,094	—

SUPPLEMENTAL TABLE,

Showing the Mortality of each Sex at all Ages, experienced at Glasgow during each of the Fifteen Years 1821-35.

Year.	Males.	Females.
1821	2.54	2.16
1822	2.46	2.06
1823	3.09	2.43
1824	2.90	2.51
1825	2.86	2.63
1826	2.72	2.21
1827	3.01	2.41
1828	3.22	2.82
1829	2.89	2.41
1830	2.70	2.15
1831	3.23	2.72
1832	4.87	4.32
1833	3.23	2.43
1834	3.16	2.43
1835	3.50	2.81
1821—25	2.78	2.37
1826—30	2.91	2.40
1831—35	3.59	2.93

It is not to be supposed possible that the past extraordinary increase in the mortality of adults at Glasgow can be of any long continuance. If the circumstances of Glasgow (and of Britain in general) had been of an ordinary nature, it might be properly concluded that the mortality between thirty and sixty years of age had passed from a minimum to a maximum (differing fifty per cent) in the short space of ten years. But it is now impossible to form any safe conclusion as to the probable future maximum. In Glasgow, and in all England, the mor-

tality under the age of five years is nearly one half less than that indicated by all previous observations, and it appears in the highest degree probable that the part of the population which has suffered so low a mortality in infancy, will suffer a correspondingly high mortality when arrived at mature years. About the year 1760 there died in London, under the age of five years, sixty out of every 100 born; in 1820 there died only thirty out of the same number. In the same period, the deaths at this age in *all* England were reduced from forty to twenty out of every 100 born. I make this statement respecting the mortality in 1760 on the authority of Dr. Price, the soundest of all writers upon this subject. It might be alleged by those who have an imperfect knowledge of the subject, that Dr. Price's opinions were founded upon defective materials, because the ages of the living in England had never been distinguished before the year 1821. This objection is of no weight when applied to the ascertaining of the mortality under the age of five years, provided that (as was the case with Dr. Price) the number of births be known. In THE LANCET of Jan. 30, I have shown that the deaths in all parts of England under the age of five years, when compared with the births, or when compared with the living in 1821 under the age of five years, yield results in all respects identical.

The results of the present complete and excellent observation on Glasgow, will serve to indicate the nature of the national loss which has been sustained by the neglect of the government to demand a return of the *ages* of the English population in 1831, similar to the return of 1821. The adviser of this measure has committed irreparable mischief, and his ignorance has seriously obstructed the advancement of the science of "population statistics." Mr. Rickman appears to have taken upon himself the responsibility of the omission, as he ventured to declare, in 1832, that such a distinction of ages would have been "unnecessary and inconclusive." At Glasgow, during the three quinquennial periods, the progressive variations in the mortality at given intervals of age, exhibit a considerable degree of uniformity. If, however, similar materials had existed for the total English population, we should probably have obtained an extremely uniform progressive variation at given ages, which might have revealed some important secrets in the laws of vitality. Combining the imperfect observation on England with the perfect observation at Glasgow, it may be considered as extremely probable, that the increasing mortality at Glasgow represents in an exaggerated degree, and forms part of, a general increase in the mortality throughout the whole of Great Britain.

In THE LANCET of December 5th, I gave a table representing the law of mortality prevailing in six large English towns, the numbers being founded on the assumption, that the registered deaths at every age were deficient by one-sixth part of the true number of deaths. The results there given, and the present accurate results for Glasgow, agree very nearly with each other, and with the results of my theoretical table of "city mortality." In the two following tables is presented a comparative view of these results. I have also added for comparison, results for London, for all England, for Sweden, and for Carlisle, and the results of two other theoretical tables. In the case of the six English towns, I have now introduced a correction in the mortality of the male sex, which I previously indicated as necessary, on account of the omission in the enumeration of the living of all the military and maritime population attached to those towns.

TABLE *of the Annual Mortality of each Sex at every Age in Glasgow, during the Fifteen Years* 1821-35, *compared with the Mortality prevailing during Eighteen Years,* 1813-30, *in six large English Towns, in London, and in all England and Wales.*

Between Ages.	Six English Towns, 18 Years, 1813-30.		Glasgow, 15 Years, 1821-35.		London, 18 Years, 1813-30.		England and Wales, 18 Years, 1813-30.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
0— 5	9.21	8.06	8.44	7.76	8.83	7.71	5.35	4.60
5—10	1.09	.97	1.25	1.23	1.14	1.02	.72	.67
10—20	.82	.63	.84	.68	.63	.56	.61	.64
20—30	1.61	1.18	1.38	.95	1.22	.92	1.01	1.04
30—40	1.67	1.45	1.68	1.47	1.69	1.35	1.14	1.24
40—50	2.08	1.84	2.44	2.19	2.54	2.04	1.49	1.49
50—60	3.23	2.76	3.55	3.45	4.04	3.19	2.34	2.16
60—70	6.48	5.17	6.36	5.71	8.12	6.56	4.53	4.12
70—80	13.28	10.92	15.35	11.79	15.97	14.50	10.12	9.69
80—90	25.40	23.84	26.89	20.73	30.91	28.90	22.71	21.46
Above 90	42.57	42.88	49.42	35.68	33.84	33.26	37 01	37.19
All ages	3.21	2.68	3.09	2.57	3.11	2.58	2.17	2.07

TABLE *of the Mortality of both Sexes, deduced from the preceding Table, together with the Mortality at Carlisle, and in all Sweden, compared with the Results of three published Theoretical Tables.*

Between Ages.	Six Towns of England.	Glasgow.	London.	Theoretical Tables.			Sweden, 21 years, 1755-75.	England and Wales.	Carlisle, 9 Years, 1779-87.
				City Mortality.	Mean Mortality.	Village Mortality.			
0— 5	8.63	8.10	8.27	8.46	6.73	7.48	9.01	4.98	8.23
5—10	1.03	1.24	1.08	1.24	.99	1.02	1.42	.70	1.02
10—20	.73	.76	.60	.88	.70	.58	.71	.63	.59
20—30	1.39	1.17	1.07	1.17	.93	.78	.92	1.02	.75
30—40	1.56	1.57	1.52	1.57	1.25	1.05	1.22	1.19	1.06
40—50	1.96	2.31	2.29	2.10	1.68	1.40	1.74	1.49	1.43
50—60	3.00	3.50	3.61	2.99	2.40	2.01	2.64	2.25	1.83
60—70	5.83	6.04	7.34	5.99	4.83	4.05	4.81	4.33	4.12
70—80	12.10	13.57	15 23	12.36	10.04	8.46	10.23	9.90	8.30
80—90	24.62	23.81	29.91	24.53	20.18	17.16	20.78	22.08	17.56
Above 90	42.72	42.55	33.55	47.20	39.85	33.45	39.41	37.10	28.44
All ages	2.95	2.83	2.84	—	—	—	2.89	2.12	2.50

In the year 1832 I published a system of "Life Tables," founded upon the discovery of three constants, which I believed to be the universal regulators of the duration of every variety of human life. I have applied these three constants (in the same manner) to three different bases, and thus produced three theoretical tables, under the designation of "village," "mean," and "city mortality," with the expectation of thereby representing every class of facts usually occurring in human mortality. As the base of the village table, I assumed the minimum mortality (at the age of ten years) to be five deaths in a year out of 1000, or one out of every 200 living. The minima in the three tables, and the mortality at every age, are in the exact proportion of the numbers 5, 6, and 7.5 respectively. The results of the village table agree closely with the results of the observation made at Carlisle in 1787 by Dr. Heysham, which represents the lowest mortality ever recorded under any circumstances. The results of the "Mean" table agree closely at every age with the observation for all Sweden during the twenty-one years 1755-75, except below the age of eight years. At this period I designedly departed from the facts, by putting back the limit of "infancy" one year, in order to represent what I expected to be the fact now in England among children. This table represents more nearly than any other published table, the mortality of the total English population. The third table, that of "city" mortality, represents more nearly than any other table the law of mortality recently observed in Glasgow and in other British towns. The observations for Sweden are beyond comparison superior to any others in existence, which are all isolated and partial. Assuming the theory to be true, I can hardly conceive the possibility of a nearer approach than that presented by the long series of Swedish observations. There exist some occasional small deviations; but the same discrepancy never occurs in two consecutive observations.

The existence of the first of the three constants is indicated when under the age of about eight years, the deaths of any two consecutive years are in the proportion of three to two nearly. (The termination of this period coincides with the epoch at which the human brain attains its full development.) The existence of the second constant is indicated when the mortality (or the deaths out of a given number living) at any decennial interval of age between fifteen and fifty-five years, is *one-third* part greater than the mortality of the preceding decennial interval. The existence of the third constant is indicated when at ages greater than fifty-five, the mortality at any decennial interval is *double* that of the preceding decennial interval. The universal existence of the first and third constants I believe to be indisputable. The existence of the second constant is apparently opposed by the single isolated observation for all England. But the present Glasgow observation neutralizes this opposition. During the five years 1821-25, the mortality in Glasgow at successive decennial intervals of age between 20 and 50, differed *less* than it ought to have done according to the theory; the same was the case in all England during the eighteen years 1813-30. But in Glasgow, during the five years 1831-35, the difference was *greater* than that resulting from

the second constant. It may hence be concluded as extremely probable, that in all England, as in Glasgow, the deviation was temporary, and would have had no existence if the circumstances of the British population had not been so rapidly changing. It is, however, worthy of remark, that during the last five years, the mortality in Glasgow between the ages of 20 and 50, resembles that now existing in London, and once existing in Stockholm, in showing a decennial increase of one half, instead of one-third. This deviation from the theory is found to occur only in large towns, when the mortality is very great, and might be accounted for by supposing the vital powers of some classes of the inhabitants to be exhausted at a very early age. This premature decay would subject these classes to the dominion of the third constant, whilst other classes were subject to the second constant. The aggregate population between the ages of twenty and fifty, will then be under the regulation of an apparent constant, intermediate between the second and third real constants.

Under the age of two years, the present Glasgow observation confirms the theory in a remarkable degree, and opposes the observations made in England. According to the theory, the deaths under the age of one year, are to the deaths between one and two years in the proportion of three to two. This is exactly the case in Glasgow, for each sex during each of the three quinquennial periods. In England, the proportion of deaths under the age of one year is considerably greater. The correctness of the English returns at this age may consequently be suspected, when thus opposed to the accurate returns from Glasgow. In England we have no information given respecting the numbers "still-born;" and it is not impossible that they may have been included among the deaths under the age of one year, which error has been really committed by Dr. Cleland in the case of Glasgow. I do not, however, wish to conceal the fact, that the theory appears to be generally inapplicable below the age of two months. The proportion of still-born in Glasgow is unusually high; they amount to one in twelve of the total deaths, or to one in sixteen of the total births. During the fifteen years, the total still-born were 3480 males and 3024 females. In the same time the deaths under the age of two years were 13,554 males and 11,833 females. Consequently, the still-born males are to the still-born females in the proportion of 8 to 7, which is the same proportion as that existing between the deaths of males and females under the age of two years.

The mortality from cholera has been distinguished for each age and for each sex in the Glasgow returns. The increase in the mortality of females at all ages from cholera, was above twenty per cent greater than the increase in the mortality of the male sex. Between the ages of twenty and thirty, the difference was most remarkable, two females dying for one male; at other ages, six females died for every five males. The chief increase of the mortality from cholera occurred between the ages of twenty and seventy years. Under the age of twenty, the relative increase from cholera at Glasgow was apparently much less than that indicated by the general returns collected by the "Board of Health." From these latter returns it would seem, that the fatality of cholera is only one half as great among children as among adults. Having carefully inspected the Glasgow returns, I do not think that there is any sufficient evidence of a greater disproportion having existed in Glasgow than in England.

46, Regent-square, London,
June 4th, 1836.

RESEARCHES OF M. JUNOD INTO THE

PHYSIOLOGICAL AND THERAPEUTIC EFFECTS

OF THE

COMPRESSION AND RAREFACTION OF AIR ON THE HUMAN BODY.

To the Editor of THE LANCET.

SIR: Some months ago I received a letter from Professor Magendie of Paris, in which, amongst other things, he mentioned that he was appointed to report upon an apparatus invented by Dr. Junod, and desired some information from me relative to a similar apparatus invented by me, an account of which appeared in THE LANCET for March the 7th, 1835. It was not in my power to give this distinguished philosopher any information in addition to that which appeared as above mentioned. I may here state, that my time has not permitted me to follow up this very interesting subject.

It is curious that Sir James Murray, M.D., of Dublin, Theodore Junod, D.M.P., of Strasburg, and the present writer, were at the same time devising and carrying into effect similar apparatus, for the purpose of removing the pressure of the atmosphere from the surface of the body, without any hint on the subject having been previously published in any journal or other publication.

I am of opinion that a translation of the most interesting portions of Dr. Junod's "Researches upon the Physiological and Therapeutical Effects of Compression and Rarefication of the Air, whether upon the

Surface of the whole Body, or upon the Limbs only," from the *Archives Générales de Médecine* for October 1835, will be acceptable to the readers of THE LANCET.

Dr. Junod forms his apparatus for the whole body, of copper, which is sustained by iron hoops. The vessel or cylinder is fixed upon a table, which is so constructed that it may be raised or lowered as desired. Light is admitted into the interior by two discs of crystal inserted in the walls of the vessel. The entry into the cylinder is situated at the top, which is to be closed or shut, *hermetically*, by means of a cover which forms a segment of a sphere, and closes the entrance or aperture in the manner of Papin's digester.

This cover contains three stopcocks, for the purpose of condensing or extracting atmospherical air, &c. One stopcock communicates with a reservoir containing a thermometer, another with a barometer, and through the third, atmospherical air is sent into the apparatus, or extracted from it. The barometer will indicate the extent of pressure or weight of the air, or the reverse when the apparatus is considerably freed from the air. In this manner the temperature will be indicated by the thermometer.

An experiment may be prolonged for any length of time, and the stopcocks and valves connected with the condensing pump or exhausting syringe, or air-pump, afford every facility for managing or regulating the process. Dr. Junod ventures to isolate the whole system;* and he informs us that when compression upon the whole body, *including the head*, is performed, the following phenomena take place:—

The Natural Pressure of the Atmosphere being augmented one half,

1st. The membrane of the tympanum being pressed towards the interior of the ear, a painful sensation is created. This inconvenience is gradually dissipated as the equilibrium becomes restored.

2nd. The play of respiration is performed with a new facility, the capacity of the lungs for air appears to augment, the aspirations are full and less frequent, in about five minutes an agreeable heat is felt in the interior of the thorax. We may say that those pulmonary cellules which had for a long time become strangers to the contact of the air, dilate again to receive it, and the whole system obtains an increase of life and of strength at each inspiration.

3rd. The augmentation of the density of the air appears to modify the circulation in a notable manner, the pulse rather increases in frequency, is full and not compressible; the caliber of the superficial veins diminishes to such a degree, that the blood, in its return to the heart, follows the direction of the deep-seated veins. These effects must also take place in the lungs, and will cause a more considerable quantity of air to enter by each inspiration than under usual circumstances. If this increasing density of the air diminishes the caliber of the veins, it necessarily follows that the blood will be augmented in quantity in the arterial system, so that the principal nervous centres —the brain being sheltered from the direct pressure of the air by the resistance of a box of bone,—are affected, the functions of the encephalon are quickened, the imagination is enlivened, and pleasurable ideas are given, which, in some persons, are like those of ebriety.

4th. The functions of the digestive tube are increased, and there is no thirst.

5th. The salivary and renal glands secrete their fluids abundantly, and this effect appears to be extended over the whole glandular system.

6th. The pulse appears to diminish in a sensible manner.

The following physiological phenomena take place

When Rarefication is effected over the whole Body.

1st. The membrane of the tympanum becomes extended, producing a sensation analogous to the compression mentioned above; and this is dissipated when the equilibrium is restored.

2nd. The respiration is restrained, the inspirations are short and frequent, after the experimented person has been in the cylinder for fifteen or twenty minutes. This state of respiration becomes still more restrained, until real dyspnœa takes place.

3rd. The pulse is full, depressible, and frequent. All descriptions of superficial vessels are in a manifest state of turgescence. The eyelids and the lips are distended by a superabundance of fluids. Frequently hemorrhagies and a tendency to syncope occur. The skin becomes unusually hot, and its functions are augmented. The lessened activity of the red portion of the blood, the greater or less expansion of the gases which circulate in the blood, the superabundance of this liquid in different descriptions of superficial vessels, sufficiently explain the deficiency of innervation, which manifests itself by a complete apathy. The renal and salivary glands, which abundantly secrete their fluids under the influence of a great density of air, present, in the case now under consideration, a totally contrary effect.

If we *alternate compression and rarefication* by the agency of this apparatus, the effect of these contrary operations will become most sensible to the person operated upon. The subjoined is a description of an

* I do not expect that any other person will try this experiment.—W. R. C.

Apparatus for compressing or rarefying the Air upon one or more of the Extremities.

This apparatus consists of

1st. Four crystal or copper tubes suitably formed to receive the isolated limb, closed hermetically, and capable of resisting the pressure of the surrounding atmosphere.

2nd. This apparatus contains a barometer and four stopcocks, fitted to an air-pump for exhaustion or condensation, as mentioned above. It is needful to add to the vacuum accomplished by this apparatus, a steam apparatus, to be regulated by a safety valve, attached to the steam-boiler, which will be necessary for the generating of the steam.

To produce compression.—It is rarely needful to effect compression upon several limbs at once, and it is specially upon the inferior extremities that this action is to be performed. For this purpose the apparatus must be suitably fitted to a condensing pump.

To effect rarefaction.—This process will readily be understood from what is stated above; the change simply consists in reversing the action of the valves and the condensing-pump, or using the air-pump, if the process be intended to be long continued. As the air becomes exhausted the mercury rises in the barometer, and the rarefaction may be continued until the mercury has risen three inches in the tube; but it is rarely needful to push the experiment so far.

The operation may be continued for a few minutes only, or, if needful, it may be prolonged for several hours, following the indications as directed, and it will in such cases be necessary to re-establish an equilibrium by admitting the air for ten minutes to each of the limbs successively. This will be essential for the renewal of the fluids which the exhaustion of the air calls to the surface of the limbs; and for promoting this renewal even a slight *compression* for a few moments may be employed.

Phenomena which take place when Compression is effected on a Limb.

By augmenting the weight of the air one half upon a limb,

1st. The skin becomes pale, the superficial veins sink, the limb diminishes in volume, and the circulation is suspended in its course, to a certain extent.

2nd. After the operation the limb feels lighter, and is moved with more than usual facility and confidence.

3rd. If compression be accomplished by the medium of heated water, the effects are the same as mentioned in paragraph 2, only they are more marked.

General Phenomena.—Independently of these phenomena, others are produced, but in a less direct manner. Thus if we operate in a certain manner upon one of the pelvic members (*membres pelviens*), there occur,—

1st. Vertigo, tingling of the ears, sparks of light glancing before the eyes, and a tendency to apoplexy.

2nd. The respiration is not performed with the usual facility.

3rd. If a vacuum be effected upon an opposed limb, these general effects are neutralized.

Phenomena which take place when a Vacuum is effected upon the Limbs.

1st. The skin is distended and coloured, the limb increases in volume in the space of a few minutes, the fluids which flow from the centre to the surface, communicate to the integuments an unusual heat, which equals that of the deep-seated tissues.

2nd. The functions of the skin receive an increase of activity; an abundant transpiration is established; the secreted fluids are converted into vapour, and are condensed upon the inner surface of the apparatus.

3rd. After the operation, a numbness of the limb or limbs is experienced, which soon goes off.

If we employ simultaneously-heated vapour, or steam, we observe the same effects, and also an increased activity.

General phenomena.—In addition we find, when a vacuum is effected upon the limbs, that,

1st. The head becomes more light, and the face pale; the pulse of the temporal artery becomes slower and thready, and in some cases ceases, at which time there is a tendency to syncope.

2nd. The respiration is facilitated.

3rd. The function of digestion is retarded, and nausea takes place in some cases.

4th. Towards the conclusion of the operation, the transpiration, which at first occurs in the interior of the apparatus only, has a tendency to become general.

5th. If *compression* be simultaneously performed upon the opposite limb, the general effects cease.

Dr. Junod gives us the following amongst the most curious of the cases which presented themselves to his observation, whether those cases were clinical or private, and the doctor asserts that none of them which came under this peculiar treatment were so interesting as the following.

Case 1.—A young man scarcely twenty years of age, engaged as a waterman, was carried to the civil hospital at Strasburg, upon the 28th of October, 1832. He had fallen upon the hypogastric region, which had sustained all the weight of his body. He instantly felt a sharp pain, and became insensible. After a lapse of four hours his mental faculties were restored, when he found the pain as before, which was accom-

panied by hematuria. He was put under antiphlogistic treatment, and soon showed symptoms indicating a speedy recovery, when, all at once, upon the night of the 2nd of November, his respiration became greatly restrained; this was relieved by bleeding; though for the eight following days this severe symptom frequently recurred, and was always relieved by large bleedings, no other remedial measures affording relief. The invalid became so exsanguined that this method of cure had to be abandoned.

On the 12th, at about 3 o'clock a.m., he experienced a return of the restrained respiration. In fifteen minutes the inspirations were only performed after long intervals, and were soon followed by a total loss of recollection. Nevertheless the circulation was not suspended. The pulse was regular, and the pulsations were forty in the minute. After having remained for twenty minutes apparently dead, the posterior muscles contracted with an augmented force. The whole weight of the body was sustained by the sinciput and the heels. The arms being placed behind, maintained the equilibrium. After this opisthotonos had continued for ten minutes, it was hastily succeeded by an emprosthotonos, and these two phenomena alternated many times in the space of a few seconds. The patient then fell into a completely lethargic state, similar to that mentioned above, and a new series of tetanic phenomena manifested itself. Finally, after an hour and twenty-five minutes, he returned to a state of quietude and sense. When this patient was at first seen by Dr. Junod, he found that these fits returned after a lapse of fifty days. Submitted to the charge of an enlightened professor, already he had tried every resource of the art, in order to prevent the recurrence of the fits or to overcome their violence. The doctor thought, at that time, that his apparatus might act efficaciously in the treatment of this disease, and upon proposing the employment of the apparatus permission was given.

On the 20th of December, a little before five o'clock, the extremities of this patient were placed in the cylinders, and a vacuum was effected, when the mercury in the tube of the barometer stood three inches higher, and, by the action of the apparatus, the first symptoms of the fit were arrested. He prolonged the action for six hours, and the return of the fit was thereby prevented. The following day the same treatment was followed, and was attended with success.

On the 28th of December the same results were obtained. Nevertheless another fit took place the next day, but at an unusual hour; and during many days the patient experienced less violent fits; the attacks were irregular, and soon afterwards, a radical cure being performed, the patient walked out of the hospital, perfectly restored to health.

I might translate three additional cases, viz., one of paralysis, in which alternate steam and vacuum relieved the patient in a wonderful manner; another in which the patient, who was found to have ossification of the aorta, and died, experienced relief; and a third which was cured of malignant cholera, by what I had in my work on cholera shown to be a good practice in the first case which I there gave.

Knowing, from actual observation, the effects which are produced upon the human body in the diving-bells, which are in constant use in our river, I cannot recommend a total isolation of the system, even when an additional quantity of air is sent in; nor can I assent to a fellow-creature being subjected to exist under a less proportion of atmosphere than that which we enjoy under ordinary circumstances. I am aware that the difficulty of effecting isolation is great, even when we employ the method which was recommended and first put into practice by Sir James Murray, for, as stated above, having had no hint with respect to a partial or a total isolation of the system, before I devised my apparatus, I adopted, after many trials, portions of white leather, suitably covered with Bayntón's adhesive plaster, so cut and placed as to isolate any limb or limbs, or any portion of the system, or even the whole body, with the exception of the head, as amply explained in my paper in THE LANCET.

Nothing is more simple or manageable than my plan of isolation. I am impressed with the idea that the reason why many instruments which might effect good, never come into general use, arises from certain difficulties in their operation. On this account I have an additional reason for recommending my plan of isolation. I think that *isolation* for the cure of diseases will at no distant period become a valuable therapeutical agent in the hands of enlightened medical practitioners, and when I recal to memory the scoffs and jokes which, some twenty years ago, were so unsparingly used against my method of isolating light, under the form of a safety-lamp for the use of our industrious pitmen, though time has proved its propriety and practicability, I need not fear that men of science will continue to resist the plan of isolation now recommended to their notice.

It is well known that I constructed the first safety-lamp, without having received the smallest hint from any quarter, and that lamp was a more *safe* one than any devised even by Davy. With my own hand I carried the said lamp into one hundred acres of fire damp of the most explosive description, in the coal mines belonging to Lady Frances Vane, now Marchioness of

Londonderry, near this town. This was some time before Davy or Stephenson constructed their safety-lamps, though the former received about two thousand pounds worth of plate, and the latter nearly half that sum in money, for their isolated lights. I do not deny Davy's merit in his researches upon flame, nor that his safety-lamp was a useful instrument *for the coal-owners*. At the same time I may remark that as my efforts were simply carried on in the cause of humanity, the coal-owners in all probability held in remembrance the old adage, that "Virtus virtutis præmium." I challenge Dr. Paris or Dr. John Davy to refute my assertions, the more particularly as they have both published a letter of Davy, which, as relates to me and my concerns, was most unwarrantable. Both of these biographers have agreed in one point, viz., the complimenting of Davy at my expense; but time will show this, as well as all other things, in its proper colours. This letter is that which Sir H. Davy addressed to Mr. Lambton, now the Earl of Durham, who at that time was a great patron of the turf, and who consequently very naturally indulges in a figurative or jockey style, as the plate had to be run for. With such backers as the late Dr. Shute, by Divine Providence Lord Bishop of Durham, and all the other *patronising* men of science in the land, it is not surprising that I was distanced,—left *out of sight*. I am, however, impelled by the importance of the subject (as all the world knows that up to the present hour explosions in coal mines are as destructive as ever), to presume to recommend that Parliament will follow up its inquiry by some act of legislation on behalf of our pitmen, before the conclusion of another session. The management of the inquiry could not be confided to a more talented and humane gentleman than Mr. Pease, Member for the Southern Division of the County of Durham.—I remain, Sir, your obedient humble servant,

W. Reid Clanny.

Sunderland, 20th May, 1836.

A REVIEW OF THE APPEARANCES WHICH

THE HUMAN TONGUE

PRESENTS IN

SOME DISEASES.

By William Macdonald, *M.D., Greenock.*

(Read before the Greenock Medical and Chirurgical Association, February 1836.)

A knowledge of the diversified aspect of the human tongue in disease is necessary for those who wish to profit by their opportunities of medical observation. The difficulty of obtaining information from books, in regard to this subject, embarrasses the student. It is with a view to obviate this difficulty, that the following remarks are respectfully submitted to the consideration of those who may feel convinced of its existence. The facts which follow have arisen from a long course of clinical observation. The reasoning founded on those facts, and the inferences drawn from the whole, will be as conclusive as the abstruse nature of the subject will permit.

It is well known that projecting points called papillæ are the chief objects which are presented by the tongue. These papillæ consist of the terminations of the gustatory nerve, they are continuous from the apex to the base of the organ, and are plentifully developed on its dorsum, borders, and point; the terminations of the papillæ are rounded on their free surface, and resemble inverted cones, whose tops are embedded in the substance of the organ. Again, the papillæ are surrounded with a delicate structure of vessels, which are supported by cellular tissue. Very near the base of the tongue we observe a small cavity which is called foramen cæcum. This cavity seems to be the common termination of the excretory ducts of the mucous glands which are within the tongue. Finally, the whole viscus is covered by means of the epidermis.

In health the papillæ are really prominent; the observer, however, may be led to think otherwise, on account of the entire dorsum of the tongue being of the same colour with the papillæ. By presenting as much of the organ as possible, then by compressing it by means of the lips for a few seconds, the truth of this remark will become obvious. It is in consequence of the regularity of the circulation of blood in the entire structure of the viscus, that the papillæ are liable to escape our notice. In such cases the dorsum of the tongue presents the same pale vermilion hue as the papillæ, because the colour of the vital fluid shines faintly through the delicate texture of the epidermis, and the vascular plexus of vessels which surrounds the papillæ, from the diaphanous nature of their respective tissues. In a state of health, too, the glands within the tongue secrete a proper quantity of mucus, which, along with the mucus exhaled from the labial and genal glands, does not accumulate upon the surface of the tongue, but is swallowed with the saliva. All these causes produce the moist, clean, and pale vermilion appearance which the tongue presents, when the circulation is equable, and the secretions and excretions, with every other article of health, approach as nearly as may be to the natural state.

During the presence of disease, it is not only proper for the student to examine the state of the tongue, but the eyes, sensorium, face, skin, pulse, respiration, digestion, secretions, and excretions, in order to ascer-

tain every symptom, and particularly such symptoms as constitute the most alarming aspect of the disease under treatment. Disorders consequent on, or symptomatic of, local disease, present various appearances of the tongue, different from those of the healthy state, before reaction supervenes. The nature of reaction is obvious to the medical philosopher, in consequence of the symptoms which accompany it.

In the early stages of symptomatic fever, even when the progress of reaction becomes manifest, we observe the tongue increased in magnitude and density, at one time, being elongated, broad, and rounded; at another time, flat, and sometimes pointed at the apex; the surface of the organ is drier and whiter than in health, the vessels which surround the papillæ are well developed, and considerably expanded, with an increased vital excitement manifest in their action; the papillæ, which are surrounded by a vascular plexus, resemble small red points on a dirty white ground. By compressing the tongue with the lips, as already referred to, the papillæ appear elevated above the epidermis, as in health; the papillæ gradually appear to be smaller in size, and fewer in number, than at the commencement of the disorder; finally, a dirty-white fur covers the entire dorsum of the tongue, and excludes the papillæ from our sight.

The augmented state of the tongue, and the vascular plexus of vessels which surround the papillæ, lead us to suspect increased action of the circulation, because the pulse is strong, frequent, full, and developed. The dryness of the organ depends at one time upon a scanty secretion of saliva, which neither moistens the tongue, nor carries away from its surface into the stomach the mucus which is exhaled in the mouth; at another time the dryness of the tongue is caused by increased action in the function of respiration, which, in consequence of its rapidity, evaporates the saliva and mucus secreted in the mouth. Indeed, in many cases, both the causes referred to may produce exsiccation of the organ under consideration. The whiteness of the tongue depends upon the accumulation of mucus upon the surface of the organ, in combination with saliva, both of which have become dry, in consequence of diminished secretion and increased respiration. The vessels which surround the papillæ, resemble small red points upon a dirty-white ground, because of the increased vital action of the system with which the tongue and every organ must be affected, since an intimate connection is established between every part of the body. The apparently gradual decrease in size and number of the papillæ, depends upon an increase of the mucus and saliva in a dried state,—a fact also indicating that the disease is on the increase. Thus the great accumulation of dried mucus and saliva excludes the papillæ from our view, and constitutes the fur which is often mentioned by practical authors.

In the more advanced stages of symptomatic fevers, the point and sides of the tongue assume a fiery redness. The dorsum presents the same red colour after the fur is detached from its surface. This redness deepens in colour, until it assumes a dark vermilion hue. On some parts of the dorsum we sometimes observe a slight coating of mucus, which appears of a pearly shining whiteness, depending in part, at least, on great exsiccation of the organ, whereas the deep vermilion colour depends on a larger quantity of blood circulating throughout the entire structure of the tongue. When these signs show themselves, we have some reason to suspect the approach of inflammation, arising from congestion of the capillaries and veins, more particularly of the encephalon, spinal chord, lungs, liver, stomach, and bowels. The presence of disorder in each of these important parts of the body, can be detected by following the counsel of many judicious authors on the practice of physic. Indeed, in every case of congestion, with a disposition to inflammation, we are not warranted in saying that organic action invariably takes place, although disorganization sometimes supervenes; yet it seems true, that in many cases of protracted disease, congestion and an inflammatory disposition arise either in the weakest part of the body, or in the part which has suffered local injury.

In many cases of bilious fever, we observe the tongue increased in size and density; the vessels of the papillæ are well developed, but of a yellow tinge. The entire surface of the tongue's dorsum, is of a deeper yellow than that of the vessels which surround the papillæ. Sometimes the tunicæ conjunctivæ of the eyes, and the whole skin which invests the body, become yellow. The inference which may be drawn from the increased size and density of the organ has already been referred to. The yellow hue which the vessels of the papillæ present, is caused by absorption of bile into the vascular system. Now, although the absorbed bile in such cases may be circulated with the mass of blood in an equal manner throughout every part of the body, yet the yellow colour which arises from its presence in the blood, would appear in many cases to be first perceived in the vessels of the tongue, and that, too, in consequence of the diaphanous nature of its investing structures. Again, portions of the eye, and the entire skin which invests the body, become yellow, upon the same basis as has been already referred to.

Idiopathic fevers, arising in weak habits, very often terminate in typhus. In the early stages of such cases, we often perceive great paleness of the tissues. The

tongue is relaxed, diminished in size and density, and, withal, of a pale hue: its dorsum sometimes exhibits a frothy moisture, conjoined with a dirty-white mucous fur. Again, the superior surface of the tongue often presents a variety of yellow, brown, and dusky shades, whereas the point and sides become very red. A tremulous motion of the organ is often observed, and, in violent cases, a chipped, dry, florid, and rasp-like roughness of the entire dorsum is evident; nay, in some cases, the tongue is as black as a cinder, or like a piece of burnt leather. The relaxed and pale appearance of the organ under consideration would appear to indicate irregular determinations of the vital fluid, with a diminution of its quantity as well as deterioration of its quality, compared with the healthy state. The red colour of the point and side, would appear to indicate a reaction, with a disposition to inflammation. The various shades of yellow, brown, and black, which are exhibited on the dorsum of the tongue, depend upon the absorption of bile into the circulation, because in the greater number of typhoid cases which I have seen, there was a depraved secretion of bile, with some obstruction to its flow into the intestines. Hence the analogy which exists between bilious disorders and typhus, and, more particularly, when the former arises in weak habits. When the tongue is like a cinder or piece of burnt leather, we have reason to believe that the organ is in a state of excessive exsiccation, depending upon the causes which have been already mentioned. The tremulous motion of the viscus, with the frothy moisture, and sometimes creamy fur which is frequently seen on its surface, may be attributed to the loss of nervous energy. This assertion may be verified by observing the marked characters of adynamic or ataxic fever which particularly denote the latter stages of typhus. In fatal cases of this disorder, we perceive a dry, florid, and rasp-like roughness of the organ, which enables us to determine that chronic inflammation has already committed its ravages in the body.

Dissections of typhoid cases very often confirm our presages, and that too upon consideration of their precursors. In general we observe that inflammation has existed in the membranes of the brain, that effusion is present on its surface, and in the ventricles, with congestions of black blood within its structure; that there has been inflammation with thickening of the bronchiæ and of the mucous membrane of the stomach and bowels; sometimes very manifest tokens of the effects of inflammation and ulceration are seen in various parts of the alimentary canal, and particularly in the aggregate glands of the ileum, and in the mucous follicles of the small intestines.

It is certain, that a majority of fevers are inflammatory in their nature, as well at their commencement as during their whole course; yet we are not warranted in saying that every case of febrile action is really connected with inflammation. We may observe many cases of fever in which we cannot discern inflammatory action, neither does it always happen, that the typhoid symptoms in such cases are the effect of prior inflammation; nor is the antiphlogistic method of cure the invariably safe treatment. Such facts are several direct arguments in support of the doctrine, as well as difficulties which result from the denial of it; these difficulties, by proving the converse of the doctrine to be false, indirectly prove the doctrine to be true, according to the general axiom, that every proposition or its converse its true. It cannot then involve a contradiction, when we say that it is individual cases of disorder which are observed in practice,—that many diseases glide into each other in consequence of the laws which regulate the operations of the system, and that not a few fevers consist of morbid actions of the most important departments of the body. These morbid actions appear at one time by a manifest depression of nervous energy; hence the tremulous motion of the tongue conjoined with the frothy, creamy moisture of its superior surface. This morbid action of the nervous system soon causes disturbance in the circulation, and accordingly we perceive the increased size and density of the tongue, with the increased vascularity of the vessels which surround the papillæ, resembling little red points on the entire surface of the organ under consideration. Again, disturbance in the circulation produces a relative affection of the respiration, secretions, and excretions, evident by the exsiccation of mucus upon the surface of the tongue, and its different shades of yellow, brown, and black, and which become manifest during the assaults of disease.

Obscure organic disease very often takes place in the brain, lungs, heart, stomach, intestines, spleen, and glandular system, after acute diseases have arisen in bad constitutions, and sometimes after protracted, remittent, and intermittent fevers. As far as my observation goes, every case in which disorganization did exist, and was manifest by means of dissection, the following were the appearances of the tongue:—In the earlier stages of the disorder, which ends in organic action, many of the appearances which have been related show themselves; but when organic disease is present, and occasions constitutional disturbance, the tongue presents for a long period a smooth morbid redness, with a more deep-red colour of the raphé or linea linguæ mediana; by compressing the organ with the lips, in the way which has been already stated, the papillæ are not to be seen, even

by the aid of microscopes; hence the evident absorption of the aggregate of the papillæ on the surface of the tongue; for the largest of them, varying in number from ten to fifteen, and which are disposed in two lines converging to an angle just before the foramen cæcum, are seldom absorbed. The cases which I have seen have led me to this conclusion.

I attribute the disappearance of the papillæ to increased action of the function of absorption, in consequence of the presence of organic disease. This view of the facts referred to is not without analogy, for practical authors have invariably given it as their opinion, that the disappearance of the fat in patients who have suffered in protracted fevers, depends on absorption. When such a result happens, the body may be said to live on itself.

Organic disease sometimes attacks the tongue itself. Such cases as I have seen, exhibited in the early stages many of the phenomena which have been already related. Very soon a gap or indentation appears on the surface of the organ, which immediately assumes the character of an irritable and unhealthy ulcer; the granulations which such an ulcer present, resemble the mites of a decayed cheese. In the progress of this disease the tongue is completely absorbed, and the larynx and pharynx are seized with the same disorder. It cannot excite surprise, that every case of this nature is mortal, unless very early and very decided medical aid is afforded.

Such is a relation of some facts which refer to the human tongue in disease. I cannot determine whether the observations which I have now made will be viewed by my friends as possessing the importance I have now attached to them. To me, indeed, they appear to possess real weight; and should the views which I have entertained tend in any way to remove the difficulties which embarrass the student of medicine, or direct the attention of the profession to the subject under consideration, I will consider that my humble exertions are by these means well rewarded.

Greenock, April 29, 1836.

CURE OF BUNIONS.

To the Editor of THE LANCET.

SIR: There is a notice in the last number of the *Medico-Chirurgical Review* of a Lecture by Sir Benjamin Brodie on Bunions and Corns, the conclusion of which seems to be, that avoidance of pressure on the parts is the best if not the only means of relief. Under these circumstances the following observations may be useful.

In several cases which I have lately had under my care, the use of the *Ungt. Iodini* has been productive of the most decided relief. In general, rubbing a piece of the ointment of the bulk of a pea on the bunion, at bed-time, has speedily relieved the pain, diminished the redness, and produced an absorption of the fluid; but in one case, where the affection was hereditary, and of long standing, the ointment afforded little relief until it had been used for a week, though soon after the expiration of that time the bunion almost disappeared. When the cutis is inflamed, the application of a leech to the foot, about an inch nearer the ankle than the situation of the bunion, will prove of great service.

The *Unguentum Iodini* (℈j to ʒj) has always proved sufficiently powerful in those cases which have come under my care; but I should think that if that remedy fails, the *unguentum hydriodatis zinci* might be tried with advantage. Of course, rest, and other prophylactic measures, are to be indulged in as far as the circumstances of the patient will admit, but every subsequent attack is more speedily relieved by the use of the ointment than the first. I have not tried the effect of iodine upon corns, but think it might prove useful. I am, Sir, your obedient servant,

JAMES MORGAN, Surgeon.

Port Glasgow, 2nd June, 1836.

REMARKABLE CASE.

A CASE of expulsion of a foreign body from the œsophagus, by injection of tartar emetic into the veins, is related in the below cited journal, by Dr. AGGENS.

An hysterical woman, forty-four years of age, affected with a *diverticulus œsophagi*, while eating her dinner partook of some potatoes; a large morsel of one not sufficiently boiled, became engaged in the sac of the œsophagus. A physician who was sent for ordered an emetic of ipecacuanha, but without effect. Three hours later the author saw her nearly in a state of suffocation. The danger was extremely pressing; he therefore dissolved three grains of *Tartar Emet.* in an ounce of distilled water, and injected two drachms of the fluid into the right median vein. In about a minute some nausea came on, but no vomiting. The danger of suffocation seemed more and more imminent, he therefore threw a similar quantity into the external ulnar vein, which immediately produced the wished-for effect. In order to prevent the access of inflammation in the vessels stimulated by the emetic fluid, a strict antiphlogistic treatment was had recourse to; but after twenty-four hours, the whole arm, and especially the neighbourhood of the elbow-joint, became

swollen. Frictions with the *Ung. Mercur. Ciner.*, scarifications, &c., gave no benefit; on the third day gangrenous vesicles were formed, and the part about the joint was of a strange hardness. The gangrene which threatened was now combated with a decoction of bark and the aqu. oxymuriat. The symptoms abated gradually under this treatment, and the woman was completely recovered at the termination of five weeks. —*Pfaff's Mitheilungen*, 1835, s. 54.

FUMIGATIONS IN HOOPING-COUGH.

Some remarks on this subject by Dr. Dohrn, appear in Hufeland's periodical. Two children of the author, one a girl three years old, the other a boy of twelve months, had suffered between two and three months from hooping-cough, during which period belladonna and various other remedies were administered without any benefit. One of the infants having been seized with a very severe attack, accompanied with involuntary stools, a fumigation of aromatic herbs was administered in the author's absence. There was no return of the access during the night; the cough now evidently diminished, and was finally removed by a repetition of this remedy. An equally happy result was obtained in several other cases. The following is an example of one of the recipes employed:—R. *Olibani* lib. 2; *Benzoes, Styr. Calamitæ*, aa. lib. ½; *Flor. Lavend., Rosar. Rubr.* aa. ℥ vj. Dr. Dohrn remarks, that the greater part of the efficacy depends probably on the benzoe.—*Hufeland and Osan's Journal*, Dec. 1835.

ROYAL INSTITUTION.

May 27, 1836.

EXAMINATION OF A SUPPOSED CONTEMPORARY OF MOSES.

The spacious theatre of this institution was yesterday fortnight crammed with philosophical *quidnuncs*, attracted by the intended examination of a mummy, a priest of Ammon, on which occasion Mr. Pettigrew was to operate. In the impacted host were, Lord Prudhoe, Mr. Wilkinson, Mr. Burton, Mr. Davidson, Professor Nieman, of Leyden, and some other distinguished hierologists. The lecturer, led away by his zeal in the culture of Egyptian antiquities, rendered his discourse rather heterogeneous by touching upon more topics than could be satisfactorily handled in the time allotted. The redundance of his matter, indeed, was such, that he would have supplied materials for a dozen lectures.

The practice of preserving the dead by embalming is (quoth Mr. P.) of great antiquity, probably as old as the time of Horus and Isis, the deliverers of Egypt from the yoke of the Typhonian or shepherd kings. (1921 B. C.) For the probability of this allegation we have the evidence supplied by the ancient Grecian writers. That this custom was preserved as recently as the fourth century, is shown by the authority of St. Athanasius, and subsequent fathers of the Christian church.

The term *mummy*, supposed by some to be derived from the Arabic *mome*, by others, from the Greek *αμωμον*, which is now applied to the *body* embalmed, was formerly attached to the antiseptic perfume employed. This is clear from the use made of the term by old authors. In the middle ages the Jews distinguished themselves by the purveyance of this fashionable aromatic, which they professed to obtain from a genuine source, but a discovery of its fabrication formed a pretext for the persecution of that ill-fated race.

The inquiries of recent antiquaries have contributed to confirm the correctness of the accounts transmitted to us, concerning the manners and customs of the ancient Egyptians, by Herodotus, Diodorus Siculus, Porphyry, and other Greeks. Herodotus states, and he is thus far corroborated by the others, that there were three modes of embalming put in practice in his time. The first mode, and the most expensive, the cost being about 225*l.* sterling, was as follows. The brain was extracted through the nostrils by means of a bronze or iron hook; this process occupied several days, and so complete was the removal, that not a fragment of the falx, the tentorium, or the reflected dura mater, was allowed to remain. The cribriform lamella of the æthmoid bone, as well as the spongy bones of the nose, were of course destroyed, but extreme care was taken not to alter the external appearance of the nostrils. When the cranium was thus emptied, a perfumed bituminous substance was injected. The next step was to open the abdomen by an incision which was always made in the left flank. This was effected with a knife, by an individual whose habitual duty it was, and who, as soon as the aperture was made, fled for his life, followed by a crowd, who threw stones at him, and heaped curses on his head as the representative of Typhon, the murderer of Osiris, the synonym of Ham, the patriarch of Egypt. For he who destroyed one of his own kind, was held in abomination by the Egyptians. The intestines were then drawn out (the heart and kidneys being the only viscera left), and washed in palm wine; the cavity was then rinsed with the same fluid. The corpse was afterwards macerated for seventy days in a solution of natron. After this it was immersed in a balsamic mixture

of costly character, and there kept at a raised temperature for such a length of time as was considered sufficient for its saturation. The final stage was the bandaging, which occupied some days in the performance. The swathed body was then transferred to the inner investure or shell, called *cartelage*. This was inserted in the outer covering or coffin, which was generally of carpentry, and the entire mummy was lastly consigned to its *sarcophagus*, which might be of wood or stone, though most commonly of the latter.

The second mode was less expensive, the disbursement being equivalent to 75*l*. English money. The brain, according to this plan, was not extracted, but being allowed to remain, its fluid parts were gradually dispersed by evaporation; the remnant gravitated into the shell of the *os occipitis*, and thus demonstrates the position in which the bodies lay during the long process of embalming, as well as afterwards, in their narrow home. The abdomen was then opened, either in the iliac region, as in the first mode, or the entrails were extracted with hooks per anum. The viscera are found either preserved in a box, or, as frequently, swathed in linen rollers, and placed in the coffin between the legs of the corse.

3. The third mode, which was not at all expensive, consisted merely in the saturation of the body in the natron for seventy days, as in the other methods, and its subsequent impregnation with the aromatic and antiseptic balsam, the exact nature of which is not now known. Probably the greater expense of the two methods first described, arose in some degree from the personal risk incurred from the fanaticism of the people, by those who performed the chirurgical part of the ceremony.

The advances which recent speculators have made towards the discovery of a true cipher for the interpretation of the hieroglyphic language of ancient Egypt, have been chiefly based upon the labours of our illustrious countryman Dr. Young, whose description of the trigrammatic Rosetta stone has raised it from a barren trophy of British valour, into a most important hierological interpreter. Dr. Young has been ably followed by M. Champollion and others, and that which was formerly a mass of meaningless configurations, promises now to unfold to us the most interesting revelations as to the early history and original condition of our race. One of the languages inscribed on the Rosetta stone being Greek, furnished Dr. Young with a key for the interpretation of the hieroglyphics. These last he has discovered to consist of three classes of signs, 1st. The *phonetic*, or alphabetical; 2. The *figurative*, which are simply pictorial; and, 3. The emblematic, such as the *hawk's head*, which is an emblem of the sun. It is obvious that the difficulty of interpretation depends, first, upon the reduction of the phonetic characters to a true language; and, secondly, upon the establishment of a definite meaning for each emblem. So much talent and so much zeal, however, are fortunately directed to the subject, that a satisfactory solution of all the difficulties cannot be far distant.

So far as these interpretations have gone, they confirm wonderfully the accounts given us by Herodotus, of what he witnessed in Egypt. There is but one error in his description of the process of embalming, and that merely regards the order of proceeding. He states that the body was washed with palm wine antecedent to the insertion into the solution of natron; but it is obvious that the ablution of the body in the wine was subsequent to the maceration.

The ancient Egyptians were a highly civilized and moral people, and the practice of embalming no doubt owed its establishment to the nature of their theology. They believed in the immortality of the soul, and in its transmigration from the human frame into the bodies of successive animals, for a cycle of *three thousand years*, when it again returned to the human form. But they believed also this metempsychosis could be prevented, by arresting the decay of the corpse in the manner described, the soul being induced to take up its residence, though in a latent condition, in the mummy, till the expiration of the transmigrating period, when it was again to resume its throne in a renovated body, and be translated to Elysium.

The body of no person, whatever might be the rank, even if regal, could be admitted to these funereal honours, and consequent interment, in the 'city of tombs,' without undergoing the ordeal of a post-mortem trial. This court was formed by forty-two judges or assessors, who received evidence as to the conduct of the individual during life. If the decision of the court was favourable, some mark of honour was inscribed on the envelopes; but if on the contrary the life of the candidate was proved to be vicious, the body was excluded from the 'city of tombs,'—the greatest misfortune that could befal an Egyptian. Instances have occurred where kings have been denied the rite of entombment. The forty-two judges were of the priesthood, but the mass of the population obtained admission to these inquests, and expressed their opinion upon the decision of the assessors by murmurs or applauses.

In a vault without the city walls, there was discovered some time ago a mummy, from whose envelopes are erased all inscriptions tending to the honour of the individual, but in which are carefully preserved all those relating to the kindred named. This is conjectured to be some monarch

denied the rite of sepulture in the region of the *amanti*.

There were manifest distinctions between the mummies formed at the different eras, Egyptian, Grecian, and Roman, both as regards the style of the external envelopes, and as regards the contents. In a mummy recently opened, and which was probably contemporary with the Emperor Adrian, many tokens of its Romanism were afforded, and a portrait of the person painted on a wooden tablet was placed on his chest. The colours are preserved in all their original vividness, and the painting forms probably the oldest portrait extant. The eras of the native Pharaohs, and of the Grecian Ptolemies, are equally well indicated. Indeed, it appears that during the Roman dynasties the Egyptian superstitions were extensively practised beyond the limits of that province.

The ingenious test of the microscope, invented by Dr. Ure of Glasgow, leaves now no doubt that the rollers employed in the swathing, which were formerly supposed to be of cotton, are invariably of linen. It is a fact, that in the microscope the linen thread is always regularly circular or cylindrical, whilst the cotton is as invariably of an irregular, flattened, tape-like appearance.

The rollers employed are of various dimeters, from four inches to twelve, and compresses are often placed in the sinuosities of the body. It has been said that a considerable time was employed by the entire preparation of the body, and this is shown by the number of insects which are found in a perfect state of preservation in the various apertures of the body, and between the strata of bandage. These are subjects of the greatest curiosity to the entomologist, and I have such a vast quantity of them, that I shall be happy to present any gentleman with a sufficient number of specimens, who may be anxious to improve his cabinet.

The solution of natron employed consisted of muriate, carbonate, and sulphate of soda, in a determinate proportion.

In consequence of some hints from Dr. Granville, I cut out a portion of the back bone and adjoining muscles of a mummy which I had by me, and boiled it for a long time. I found, on examination, that the cancella of the vertebræ, and every interstice of the flesh, were perfectly filled with the antiseptic balsam. I succeeded by boiling in depriving the parts of this substance, and I found in a few days unequivocal signs of putrefaction exhibit themselves, so that I have been obliged to place them in a preparation jar with some spirits. This fact shows how perfect the conservation of the soft parts has been.

Besides the mummy to be opened, Mr. Pettigrew exhibited another, in illustration of the various facts and opinions adduced by him. In this the posterior part of the cranium had been removed, and an aperture, about the size of a crown, was seen, in the place of the ethmoid bone, through which it was obvious the brain and its meninges had been picked away. The body of this mummy showed the unvarying incision in the *left* iliac region, and on its various parts were remains of gilding. It was the undeviating custom of this singular people to gild the bodies of their friends. In females, the *eyelids*, *mammæ*, *mons veneris*, and *vulva*, were gilt. In other instances the organs of the external senses were thus distinguished, and not unfrequently the entire body was covered. In this particular subject the anterior part only was thus adorned. Mr. Brockedon suggests that this gilding was done in precisely the same manner as that in which picture-frames are now done. This practice of gilding does not at all appear to have been confined to the rich.

The inscriptions upon the different cases generally refer to the private history of the deceased, and to his pedigree no reference is made to family distinction, for, in Egypt, all men were considered equally noble. Several of the hieroglyphics were general or common to all coffins, consisting of a representation of admitted religious doctrines. Mr. Pettigrew was confirmed in this opinion, by observing in Mr. Salt's collection a coffin nearly covered with hieroglyphics, but having no name, and a blank space where the private history was usually depicted. This he considers to have been prepared in the workshop of the manufacturer, but not appropriated.

Mr. Pettigrew now entered into a minute and interesting description of various particulars associated with this ancient art, such as the fact of mummies being discovered at Palermo, the Canary Islands, Peru, and other places; the interesting facts developed by an examination of the various utensils consigned to the tomb with the proprietor, such as utensils of husbandry and handicraft, writing instruments and materials, such as fingers of ivory and agate, employed for the purpose of smoothing the papyrus, and even articles of the toilet. He also alluded to the mode of wearing the hair, practised by women, and satisfactorily proved that the fashion of curling that beautiful appendage of the body then adopted, is perfectly in accordance with that patronized by the *Aout ton* of the present day.

The patience of the auditory, however, was at length exhausted, and the lecturer was fairly driven to the demonstration of the mummy.

This mummy was purchased by Mr. Pettigrew, at the sale of the late Mr. Salt's museum. The sarcophagus in which it was contained being very large, and formed of very friable plaster, Mr. P. had desired

his son to form a model of it on a diminished scale, and which the connoisseurs present declared to be an exact fac-simile. Mr. Pettigrew had also not brought forward the outer case, because it was inconveniently bulky, and the hieroglyphics upon it were identical with those upon the inner case.

Mr. Pettigrew gave, as succinctly as the auditory would let him, an explanation of the representation on the sarcophagus. Having pointed out the head and foot of this depository, he remarked that on the right side at each end, was depicted the hawk's head, an emblem of the sun, and the sacred eye; next to this was perceived the deceased, a priest, worshipping Osiris, and the four *amunti* or genii of the tomb. In the centre was seen the barge of the sun, with the deceased ferrying himself over the lake from his own gnome or department, and Horus acting as his steersman. On the left side were seen the hawk's head, and the sacred eyes, and the deceased, with Osiris, and the four *amunti*. But in the centre was a remarkable representation; the universe was painted blue, and there were two judges with rams' heads, and the figure of a man falling painted red, and that of a man rising painted blue. This delineation, according to Mr. Wilkinson, has reference to the two natures of man, the spiritual and corporeal, the falling figure indicating the dying body, whilst the blue indicates the emancipated soul shaking off its 'mortal coil,' or tenement of clay.

On the right of the lid, three lines of hieroglyphics described the body inclosed as that of *Osiri, Osirio*, or *Osiriosi* (for it is written in all three ways), who was the son of a priest named Oncutri, who was the son of the priest Onecso, the son of the priest Hornesi. His mother was Marchausi. At the foot of the cartelage is a representation of the deceased on the back of the sacred bull Apis, who is galloping off with him to Elysium.

On the inner surface of the lid of the innermost case is a singular design, consisting of four right lines equidistant from each other, presenting the appearance of a graduated surface. This has erroneously been supposed to be a form of nilometer; but there is little doubt, at present, as to its being an Osirian emblem of intellectual power.

When the lid of the cartelage was removed, the outline of the human figure was appreciable. A shroud was removed which enveloped the whole body, and which, like the other wrappers, was of a light brick colour. After a skull-cap was taken from the head, the unrolling was proceeded with and occupied three quarters of an hour. The rollers were of various lengths, and applied in various directions, some forming a figure of eight from head to foot, and others winding circularly. Compresses were applied in the various hollows, all of linen. At three several places the deceased's name abbreviated, was found written on the end of the roller, showing that the process was carried on in stages, and that probably several bodies were undergoing it at the same time, so that this was an obvious expedient to prevent the mistaking of one body for another. As the unswathing proceeded it was discovered that older linen had been employed near the body, as was proved by the *darns* that were visible. At one stage a large sheet was removed which had been wrapped round the body, and was the largest piece of linen thus used ever seen by Mr. Pettigrew. In this case the limbs were swathed separately from the body. The head was first exposed, and ascertained to be that of a priest, by the shaven crown; the sex was proved by the beard and the pudendum. The incision in the flank was made out, and the intestines were found rolled up separately, and placed between the legs. A thick coat of resinous matter enveloped the skin, from which it was with difficulty removed, and it was closely adherent to the bandages first applied. The soft parts, though considerably shrunken, are prominent enough to give the character of the outline; the colour is dark-brown. Osirio, whose remains we have just described, was a priest of the oblations, and probably officiated in the Temple of Carnac, dedicated to Jupiter Ammon at Thebes.

So various were the specimens of Egyptian antiquity displayed in the library, and which were supplied from many quarters, that they beggar description.

THE LANCET.

London, Saturday, June 11, 1836.

THE eight medical practitioners who signed the protest against the Clubbists of the Stroud Union, have by that act vindicated their own honour, and sustained the character of the profession. They have taken the right course throughout,—First, by resisting the pick-pocket slaughter clubs; Secondly, by refusing to meet in practice those members of the profession who have disgraced themselves by bowing submissively to the mandate of the Board of Guardians; and, Thirdly, by exposing the degradation which has been inflicted on the character of the profession by *some* of

its members, and the mode which had been adopted by others for the maintenance of its respectability, its utility, and its independence. If the terms proposed by the Board of Guardians, under the sanction of the Poor-Law Commissioners, had been accepted in the Union without resistance, we should have blushed for the profession, and have feared that the worst consequences would result from the cowardice and cupidity of its members. Fortunately, however, the proposals have been spurned by a large body of practitioners residing in the district. We have yet to learn by whom and by how many the scandalous proposals were meanly accepted. We have yet to learn by whom medicines and attendance are to be provided for the sum of SIXPENCE A YEAR for every person under sixteen years of age,—a payment for which neither a cat nor a dog would be subjected to the care of a veterinary surgeon by any owner who did not wish the life of the animal to be destroyed.

But we have been told that the poor persons themselves do not complain of the existing arrangements. The assertion is founded in falsehood. Remonstrances against the infamous system are heard in every Union,—that is, in every Union which is situated at a distance from the metropolis. In London little is said respecting the medical arrangements of the Unions, because the medical practitioners have not been insulted by such propositions as have emanated from the Guardians of Stroud. The Poor-Law Commissioners in this respect, by making a display of justice, have cunningly shown a keen attachment for their own ease and quiet. Besides all the requisite accommodation of a sick-ward in the workhouse, or of a small parochial infirmary,—besides having the poor close to his own door,—the surgeon of *a single parish* of an Union in London, receives a salary in some cases of a hundred and of a hundred and fifty pounds per annum. Cases of this description have fallen within our own knowledge. In others, which are unknown to us, it is probable,—and we have reason for believing the supposition to be a fact,—that the salary mounts up to 250*l.* or even 300*l.* a-year. Yet what is the labour of attending the poor in one or two parishes of the Metropolis, compared with that of ministering to the ailments of the sick paupers of *fifteen parishes* of an Union in the country, where, in all probability, not one-fifteenth portion of the paupers resides within a distance of two miles from the house of the practitioner? The more we reflect on all the circumstances connected with the medical contracts of the Boards of Guardians, the more fully are we persuaded that the system established by them is one of cruelty and of slaughter, so far as the poor are concerned. Even if it were true that the sufferers make no allegations of negligence and incapacity against the practitioners who may undertake to provide them with medicines and attendance at a charge of SIXPENCE A YEAR for each young person, their silence would, to the mind of a humane man, merely prove what is actually the fact, that the sufferers have not the requisite knowledge for determining what in reality is negligence or cruelty in medical practice. The medical practitioner *alone* is the judge of that. Amongst the best informed members of the community, in the higher walks of medical practice, by whom is it determined *when* the sick shall be visited, *when* medicine shall be administered, or *when* an operation shall be performed? By the medical practitioner himself. To *his* discretion, to *his* honour, all is left. Any interference with *his* authority is deemed intrusive and impertinent; because, from the very nature of his duties,—from the responsibility which he incurs,—from his acquaintance with diseases and remedies, he is erected, on such occasions, by custom, and by his own resolves, into the sole arbiter of the management. The practice is a sound one. Society acts wisely in allowing this vast power to rest on the judgment of

one man, as it necessarily happens that the studies of that individual render him, beyond all other persons, the most competent authority. When, however, this extent of confidence is reposed in any individual practitioner, the most unbounded reliance falls on *his integrity*. No doubt, no suspicion is entertained that the confidence is abused by the obtrusion of unnecessary visits, the consequent result of an increase in the number of fees,—that medicines are unnecessarily given to prolong the disease and augment the bill of costs. Or, if a doubt *be* entertained,—if suspicion do for a moment rest upon the mind, away goes the confidence, and, almost with equal readiness, the further visits of the practitioner are declined. In the ordinary walks of life, therefore, loss of character with the medical man is the invariable precursor of loss of practice. When the moral reputation of a surgeon becomes tainted, his progress towards the temple of Fame must in all cases be slow, and in most instances it is prevented altogether. In fact, it must be admitted by medical practitioners themselves, that there is no profession in which so much mischief may be done by an evil-minded or malignant person, as in that of medicine. The lawyer may mulct a rich client, and defraud and oppress a poor one. The fanatical preacher, for the sake of pelf, may disseminate false doctrines, and delude and inflame the imagination of his hearers. Thus the mind may be tortured, and persons unsuspectingly plundered of their repose and their property. But the dishonest medical practitioner can add to these calamities, severe bodily suffering, and the extent of the evil is not diminished by the fact that, in *his* case, if there *be* hardness of heart, conscience, which is the only monitor on such occasions, remains inactive and silent, and the culprit finds, in the unabated confidence of his victim, an impenetrable shield for his guilt. Good God! Is it to be endured by the humane people of this country, by the aristocracy, by the wealthy classes of England, that the sick paupers shall be consigned to the sanguinary hands of men who, with monstrous baseness, undertake by bond to provide for poor children all requisite medicines and attendance for the sum of SIXPENCE A YEAR? Leaving all feelings of humanity out of the question, common sense tells us that the very offer proves the disqualification of the candidate. When the miscreant makes the proposal to his friends, the Guardians, he knows that it is his intention to *neglect* the poor,—to consign them to suffering and the grave. It is his intention to pay no more visits to the sick than may be sufficient to screen him from the consequences of a coroner's inquest. He does not mean to give costly drugs, however necessary they may be for the cure, however great the agony of the afflicted patient. He consoles himself by the reflection, that THE DEAD TELL NO TALES, and he hopes, moreover, to lay the foundation of A LUCRATIVE PRACTICE, by performing a few striking and extraordinary cures. *The Poor-Law Commissioners understand this system*; they are not so ignorant as to be uninformed regarding any portion of it; but they have resolved to reduce the amount of the poor-rates, and, at the same time, to consign the sick paupers to a set of the most abandoned and worthless adventurers,—to the most cruel and avaricious knaves that ever disgraced or abused the ordinances of civilized society. Far be it from us to deny that there are humane surgeons who have entered into contracts at low rates in the Unions. Chance and *necessity* have made those benevolent men contractors, not the sagacity or the liberality of the Guardians or the Commissioners. *In self-defence* the contracts have been undertaken. The lesser of the two evils has been chosen by the resident practitioner. He has consented to encounter the toil, the peril, the anxieties, of a most important duty, rather than allow the Guardians to establish a rival practitioner

almost at his very door. In these cases the moral turpitude is wholly attributable to *the Guardians and the Commissioners*. The humane surgeon submits to be cheated for *a year*, in preference to being plundered *for life*. He agrees to a temporary increase of toil rather than submit to be ruined. When, however, an insult is offered to an entire body of medical practitioners in an extensive district, such as that of Stroud,—when the introduction of an adventurer, under circumstances which are disreputable to his character as a man, and disgraceful to his name as a surgeon, can have, comparatively speaking, no perceptible effect on the interests of any *one* surgeon of that district, it is lamentable to learn that *the whole* of the surgeons of such an Union do not reject with feelings of indignation and contempt, the paltry pence which are professed as at once the price and the bribe of their moral character and professional reputation. In effect, the Guardians of the Stroud Union have *commanded* the medical practitioners of that district to attend the independent artisans and labourers, and the well-paid household servants,—to provide these parties with medicine and attendance,—for three shillings each *per annum*;—for two shillings each, a man and his wife,—and for SIXPENCE A YEAR, each subscriber who may be under sixteen years of age; and it is commanded, too, with respect to persons over whom the Guardians can exercise no legal control. These persons are not applicants for relief from the poor fund; they are altogether independent of the Guardians; so, also, are the medical practitioners. Yet under the command of the Commissioners at Somerset House, the whole are ordered to enter into an engagement, the terms of which are as repulsive to the claims of justice and humanity, as they are insulting and derogatory to the practitioners of medicine.

Besides these stipulations, the Guardians announce that they, out of mere grace and goodness, will be subscribers to a "pauper list," on the conditions just mentioned, and that no persons shall receive from them the assistance of medical skill, and the aid of medicine, unless the names of the applicants for relief are found on that death-ordaining catalogue. Assuredly there will be found not *one*, but a body of persons in Stroud, who will petition Parliament on the subject. The medical practitioners who have published their spirited protest on this occasion, and have declared that they will not meet in consultation any practitioner who has agreed to the audacious proposals of the Guardians, have discharged their duty generously and manfully. It is to be hoped that the benevolent rate-payers of Stroud will follow the example, and protest *to the legislature of the country*, against that sacrifice of the poor which must result from the practical operation of such an arrangement. At present, with the exception of the protest of the eight high-minded medical practitioners, the whole proceeding is a disgrace to the legislature, and a scandal to the country.

There is, however, "in the lowest deep a lower still," and in condemning acts of inhumanity, we have been instructed by the contents of the following authenticated communication, not again to stigmatize as the "*most* infamous," any abominable transaction which may at any future time fall under our notice. The abomination committed by the Guardians of the Stroud Union has been surpassed,—aye, in the respectable and wealthy county of Surrey, a county, one border of which dips deeply into this metropolis. The following communication has, we repeat, been forwarded to us by a correspondent who has given to us his name and address, through the hands of a metropolitan gentleman of respectability. Notwithstanding, therefore, the *internal* evidence against the possibility of the allegations being true, the *collateral* testimony is sufficient to sustain the ponderous accusations against the Guardians of the Hambledon Union, and their masters in Somerset House:—

HAMBLEDON UNION.

To the Editor of THE LANCET.

SIR: Knowing that your best exertions are always at command to increase the respectability of the medical profession, and to provide for the welfare of medical students generally, I cannot refrain from inquiring whether you are able to suggest any cause for medicine and surgery being so underrated as they are by some of the Poor-Law Commissioners, and many of the Boards of Guardians.

An union of *sixteen* parishes has been formed at Hambledon, near Godalming, Surrey, population *twelve thousand*, circumference upwards of *sixty* miles, length twenty, breadth ten miles. The paupers had previously been attended by *seven* neighbouring practitioners, at an average expense of *three hundred and fifty pounds per annum, exclusive of extras*. At the first meeting of Guardians it was decided, that 250*l.* should be offered to the late medical men, including every thing, *even midwifery*, trusses excepted, and that it should be divided according to the population of their several districts. It was also demanded that their answer should be given in a fortnight. At the expiration of that time, they all waited upon the Board of Guardians, and stated, that although they considered 250*l.* far from being equivalent to their services, they would consent to undertake the medical care of the Union for that sum, provided so much per case were paid for midwifery when the skill of an accoucheur was *indispensable*, for it is usual for the paupers to be attended in their labours by women. The Guardians declared that *they had no power to make such concession*, whereupon the medical men declined having anything to do with the Union. Upon this, advertisements were inserted in the newspapers, inquiring for a person to take the *whole* Union, when a tender of ONE HUNDRED AND TEN POUNDS was sent in by *a gentleman of Shropshire, twenty-six years of age*, who was, after giving references, and producing testimonials (bearing date November, 1834), accepted on Monday, May 23rd ultimo. I am not aware that it is customary to increase the salary of an untried person, but the Guardians have actually added *forty pounds* to the tender sent in by the above gentleman, *who was a total stranger to them*, and not then residing in the neighbourhood, and this after having said, that it was impossible for any individual to perform the duties of so extensive a tract of country. It is reported that the gentleman expects to be out of pocket by the contract, but that he looks upon it as *an introduction*. Surely he must be more than man *if he attends to private practice besides*; nay, the two are not possible, and it leads me to suppose, that the Guardians seldom enter the cottages of the sick poor, and, therefore, fancy that illness is universal among them, or they believe that the former medical attendants of the parishes contained in the Union, must have had sinecures, though, indeed, *that* has not been the case, and unless the number of invalid paupers should for the future decrease, they must soon be in a deplorable condition. It has been asserted, with what foundation I know not, that the Poor-Law Commissioners have at their command forty or fifty young men, who are sent by them to different Unions, where the former medical attendants will not compromise their own characters, and the respectability of the profession, by undertaking *impossibilities*. I am, Sir, your obedient servant,

A FRIEND TO JUSTICE, AND A CONSTANT READER OF YOUR JOURNAL.

May 28, 1836.

What is the meaning of all this? Is it the object of the executive Government, of the Poor-Law Commissioners, and of the Boards of Guardians, to coerce the poor into a state of desperation and madness? Mark the change which has taken place in the Hambledon Union relative to the medical management of the sick paupers, since the enactment of the Poor-Law Amendment Bill. The nature and extent of the alterations will be best seen by contrasting the condition of the two periods, that is, the condition of the poor under the old law, as contrasted with what has taken place under the new law:—

UNDER THE OLD POOR-LAW.

For the sixteen parishes in the Union, population 12,000,.....*seven surgeons.*

Charges for medicines and attendance, exclusive of extras, ... 350*l. per annum.*

The seven surgeons were *the resident experienced practitioners of the district.*

The seven surgeons were placed within *convenient distances from the abodes of the poor, in different parts of the Union.*

UNDER THE NEW POOR-LAW.

For the sixteen parishes in the Union, population 12,000,.....*one surgeon.*

Charges for medicines and attendance, exclusive of extras,.....110*l. per annum.*

The one surgeon is *a stranger from Shropshire, only twenty-six years of age,* and, according to his testimonials, *only two years from the medical schools.*

The sick poor belonging to sixteen parishes, of nearly sixty miles circumference, are now *to send for assistance to, and fetch their medicines from, one house in this vast district.*

Here, then, is the evidence of a few of the "improvements" which have been effected by amending the Poor Laws. The parties who enter into such beneficent engagements, are necessarily actuated by the most pure and honourable motives. They are too high-minded, too mild and meek of spirit, to hear the atrocious crime of "MURDER" mentioned, without shuddering. *They* could not wantonly commit slaughter amongst their fellow-creatures. Of course not; because such is the decree of *the law*, from which they derive *their* authority. Our correspondent has omitted to favour us with the name of the new CONTRACTOR, and copies of his "testimonials," dated November 1834. We are in want of both, as it may be useful to institute an efficient inquiry into the extent of the *moral* and *professional* qualifications of the new candidate for Poor-Law fame.

THE paper of our able and learned correspondent Mr. EDMONDS, forming the first article in the present number of THE LANCET, contains the result of a new and excellent observation on the mortality of the Glasgow population. Although the results are derived from so small a proportion of the British population as that of Glasgow, yet they are of great national value, because, being founded on complete and unquestionably accurate details, they confirm in a high degree the tentative results which Mr. EDMONDS has already given for the towns of England, and the collateral results for England in general. Mr. EDMONDS has furnished in his paper very acute and logical arguments for presuming the mortality of the English population to be now in a state of rapid increase, and did the subject of his essay present no other claim on the attention of our medical brethren, we are sure that the light in which he has placed it in his introductory remarks, will ensure for this momentous topic their serious reflection. "The population of England," says Mr. EDMONDS, "being on the increase, at the "rate of sixteen per cent in every ten years, "it follows that the quantity of sickness in "a given parish is increasing at the rate "of twenty-six per cent every ten years. "Nevertheless the attempt is now being "made, to diminish the remuneration of "medical men, whilst the amount of de-"mand on them for professional labour is "rapidly increasing."

The paper abounds in new and interesting facts, the existence of which is as yet "hardly known to any portion of the British "public."

WE have received two notes signed "A. CROMBIE," the writer of which states that he is "a member of the committee for the establishment of a Lithotriptic Hospital," and, "on the authority of Baron HEURTE-"LOUP, he declares in the most explicit "terms that the alleged recent case of "failure" of a lithotriptic operation, performed for the relief of a patient whose case

was described in a letter signed "VERITAS," in THE LANCET, of May 14th, "has no "foundation in truth, and that the state-"ment of 'VERITAS' must have originated "either in ignorance or malignity." We may now state that our correspondent referred to the case of Colonel RANKIN, but we have since been given to understand that a more recent case has occurred, in which the knife was also employed for the liberation of the lithotriptic instrument. We call on Baron HEURTELOUP to publish the particulars of both of these cases. Such an act of courtesy is due to the profession; such an act of duty is owing to the public.

Mr. CROMBIE is a novice in matters connected with the press. The communication of our correspondent was authenticated, not for the satisfaction of silly or impertinent inquirers, but for the information of the editor of the Journal.

MEDICAL CORONER.—On Friday the 27th ult. Mr. G. B. Corfe, surgeon, was re-elected coroner for the town, and county of the town, of Southampton, an office which he had filled for four years previously.

COURT OF COMMON PLEAS.

Before Mr. Justice Bosanquet, June 3rd, 1836.

PETTIGREW v. LAURIE.

THE plaintiff, a surgeon, residing in Saville-row, sought to recover the sum of 338*l.*, for professional attendance on the late Mr. Peter Laurie, saddler, of Oxford-street. The attendance extended through a period of nearly four years, and was charged at the rate of seven shillings per visit while the deceased resided in town, and a guinea while at Hampstead. The defence set up against this demand was, that the visits were unnecessarily frequent, and that the plaintiff had received two sums of twenty guineas, for two years attendance, and that one hundred and sixty pounds was paid into Court as an amply sufficient remuneration. The case of the plaintiff was supported by the evidence of Drs. Johnson, Copland, and Somerville, and Messrs. Maclure, Lawes, and Pettigrew, jun., surgeons.

The Jury found a verdict for the plaintiff for 300*l.*, thus awarding the sum of seven shillings per visit to the surgeon for the exercise of his professional knowledge, and the attendances given.

LATE PROCEEDINGS AT THE VETERINARY COLLEGE.

EJECTION OF THE PUPILS' MEDICAL SOCIETY BY MR. COLEMAN.

To the Editor of THE LANCET.

SIR: Permit me to request your insertion of the following detail of some extraordinary circumstances which have lately taken place at the *Royal Veterinary College*. The narration may be beneficial to the pupils, and perhaps not uninteresting to your readers generally. The events have in some measure arisen in consequence of the exertions of your valuable reforming Journal, which, by its repeated exposures of the inefficient system of education pursued at the Veterinary College, has mainly contributed to effect those partial ameliorations which have yet been accomplished, and now that it is no longer possible to obtain the diploma of the College in three or four months, as was formerly the case, a more intelligent and independent class of students has been brought into existence. The able tactician who reigns at the head of the establishment has long fought against reform in the College. But his opposition has only protracted, not, ended the war against monopoly. The circumstances I am about to relate will show another instance of his desperation and skill, in relieving himself from a "false position" into which the combined indiscretion and obstinacy of his subordinate officers have lately placed him. He has been compelled, indeed, at length, as it were, to destroy an outpost of his fortifications, rather than allow it to fall into the hands of others.

For more than twenty years there has existed a society of pupils at the College, called the "Veterinary Medical Society," in which the professor's assistant has been the president from the commencement of its meetings, which were held weekly in the theatre of the institution. It somewhat resembled the societies of students held at the various hospitals. Nearly all the pupils of the College belonged to it, and, in the extreme paucity of regular instruction at the school, they have frequently declared that they derived more useful knowledge from the discussions elicited at these meetings, than from any other available source of information within the walls. In consequence of the short time which young men in general were required to remain at the College, it has happened that they cared little about the common business of this society. The mere right of joining in the discussion chiefly interested them. The management has, therefore, been chiefly controlled by

the president, Mr. Assistant Sewell, and a gentleman named Spooner, who teaches anatomy in the neighbourhood, and who has held the double office of vice-president and treasurer, assisted by the college clerk Mr. Morton, who was both secretary and librarian. Six of the pupils were added to these, to form an ostensible "Committee of Management;" but as a vote attached, *ex officio*, to each of the five appointments, so it generally occurred that the above three gentlemen, whose names are given, formed the acting quorum of the Society, and they have, indeed, for years done nearly as they pleased with its funds and its laws.

Differences, however, arose between this influential trio, and Mr. Vines, the authorized demonstrator at the College, and who is known as the author of several treatises on physiological subjects, some of which have appeared in the pages of THE LANCET. Mr. Vines is entitled to a large share of consideration as regards his profession, since *his* writings (which I refer to without offering any opinion upon them) are the only proofs of industry or scientific research which have emanated from the teachers at this school for a space of full thirty years. But it appears that Mr. Vines is anything but acceptable to the officers of the Society, who allege that he resigned or forfeited his membership among them nearly five years ago, although no attempt was made to prevent his joining in the discussions, until a few weeks since, when he was stopped by the vice-president, Mr. Spooner, while making some remarks (rather warmly it is said) on a paper respecting the physiology of the blood. Some confusion arose, and much was said respecting the interruption on both sides; however, the majority of the members appear to have been indignant at the charge made against Mr. Vines, while the trio asserted that he was not a member, and subsequently demanded an apology from him for his former conduct. This being refused, they all three, viz., the president, the vice-president-and-treasurer, and the secretary-and-librarian, simultaneously resigned their situations, in formal dudgeon, the Society, as formally, tendering them a vote of thanks for "past services."

The pupils now sought the mediation of Professor Coleman, who frankly coincided in their opinion of the impropriety of looking back so far as five years into the conduct of Mr. Vines, who, he said, being useful as an assistant in their studies and at their discussions, it was desirable to retain in the Society. He then advised them to re-elect their old officers, which was accordingly done, in the expectation that they would relent; but no, the trio were fixed in determination, and obstinately declined to resume their places, unless Mr. Vines would "apologize."

In this strait, the Society, on the 12th of April last, elected Professor Coleman as their president and treasurer, but when the Committee waited on him to announce his appointment, he distinctly and decidedly *refused to accept office* for various reasons, which he stated, recommending them rather to choose a chairman out of their own body. He further advised them to increase the number of their Committee, which was a good and disinterested recommendation.

This refusal of Mr. Coleman took place on the 13th of April, whereupon the committee decided on calling to the presidential chair, some professional gentleman whose reputation and talents would enhance the value of the pupils' certificates. Several names were accordingly proposed and considered, and on the 15th, at a special meeting, Mr. Bracy Clark having been proposed, he was elected by a majority of six above another veterinarian, and the new secretary was desired to acquaint him with the circumstance, and solicit his acceptance of office. Mr. W. Percivall was elected vice-president, but he has subsequently declined on the ground of non-residence.

So far the affair had been confined to the College itself, but no sooner did the professor hear of the election of Mr. B. Clark, that event being entirely *unforeseen* and *unexpected* by Mr. Coleman, than the opinions of Mr. C. respecting "office" seemed to undergo a change. Any one who knows even but a little of the veterinary profession, is aware that Mr. Coleman has always been opposed to the doctrines advocated by Mr. B. Clark. To allow Mr. Clark to obtain a footing in the College now, was not to be thought of, and active and decided measures to prevent that result were deemed by Mr. Coleman to be necessary. Accordingly the Professor had an interview with the new Secretary of the Society, and at once declared that he had *misunderstood* the committee when they waited on him three days before; and that he was not aware that they had actually *elected* him as their president, or he would have accepted the office, at least *pro tempore*, or until their "differences" could be arranged. But this statement being so very contrary to the fixed impression of every gentleman present, that it was received with incredulity.

In the mean time, Mr. B. Clark sent his reply in a letter to the committee, the receipt of which was announced to Mr. Coleman before the letter was opened by the newly-elected secretary. Mr. Coleman, anticipating that the letter contained an unconditional acceptance of the chair, and alarmed at the event, actually prevailed upon the secretary to take the letter back unopened, without handing it to the committee, and giving to the messenger a politely worded message to deliver to Mr. Clark, requesting him as a favour to allow the mat-

ter to stand over for a week or two, and intimating that he, Mr. Coleman, was ready now to occupy the seat himself, "and use a last endeavour at conciliation; and if that did not succeed, he could have no personal objection to Mr. Bracy Clark taking the chair." Mr. Clark, of course, was not a little surprised at this proceeding, and breaking open the seal of his own letter, he read it aloud, afterwards desiring the bearer to take it *to the committee, to whom it was directed*, for their perusal. The fact was, that Mr. Clark had said that in his letter which amounted to *declining the office*. After thanking the Society for the distinguished notice which they had conferred upon him, his letter alluded to the recent adoption of his views and nomenclature of the foot of the horse, by the French Veterinary School at Charenton, and he accepted this overture from the College as a first approach to a more liberal feeling than he had hitherto experienced in that quarter, and concluded by accepting the office only in case his doing so *would be well received by Mr. Coleman*, and stipulating for evidence of "such permission, formally obtained!"

No time was now to be lost, as the pupils seemed inclined to persist in their choice of Mr. Clark. On the evening of the same day, therefore, when the discussion of a paper was nearly over, Mr. Coleman sent in a note to inform the Society that he would now preside, and shortly afterwards he came into the theatre, and took the chair, which had previously been occupied by a student. One or two members afterwards resigned in disgust at this dictatory proceeding, and on the following day the committee addressed to him a respectful letter, requesting a definitive answer to the question, whether or not he objected to Mr. Clark as president.

But one resource now remained, and that was, *to break up the Society*. In his reply Mr. Coleman, after many complimentary acknowledgments, expressed "his high sense of Mr. Clark's honourable and liberal conduct in consulting his wishes;" that he "felt it his duty to express his objection to Mr. Clark's appointment as President of the Veterinary Medical Society *at present*, and until the consent of the governors of the Royal Veterinary College could be obtained." This document would have been improved in sincerity had Mr. Coleman added that the "consent" of the Governors was never meant "to be obtained."

For some weeks after this time, and up to the period of the Governors' annual meeting, Mr. Coleman continued to sit as honorary chairman, or "patron" of the Society, the latter title seeming to have been revived by his friends for the occasion. Great has been the weight of his patronage, for it has had the extraordinary effect of turning the Society out of doors, as appears by the exhibition of the following illiterate *affiche* on the walls of the theatre.

"At the annual general meeting of the governors and subscribers *to* the Royal Veterinary College, held this day (Thursday), May 26, 1836, *Ordered*—'That the London Veterinary Medical Society do not hold *their* meetings within the walls of the College.'

"WM. SEWELL,
"Assistant-Professor."

And who, it may be asked, are these paramount "governors?" It would naturally be supposed that those who regulate the proceedings of the only veterinary school in this great kingdom, were an assemblage of influential men, admirers of the art, and friends to the well-being of horses, who were zealous for the advance of the profession. Alas! no such truth can be told of them. The acting governors for years have consisted of four or five personal friends of the professor and his deputy, whose views are conveniently expounded at the annual meeting of governors and subscribers at the Thatched-House Tavern, where the deputy sits as secretary. These personal friends have been always the pliant servants of the two active and *real* governors, "excellent cat's paws to put forward as sanctioners of their measures, and to bear the odium of all their unpopular actions;" and unpopular they may well have become. Their illiberality towards the profession is unbounded. In 1829 the Professor persuaded these few "governors" to expel *veterinary surgeons* from the College as subscribers, because he was fearful they would expose his system. One reason indeed urged for this step by Mr. B., an active friend of the sub-professor, was this that "if veterinary surgeons were permitted to become subscribers, they would learn some of the *secrets of the College*, and become *more skilful* than the professors, and thus interfere with the *profits of the College!*" Thus, Mr. Coleman, desirous of avoiding the direct obloquy of refusing his consent to the appointment of Mr. Bracy Clark, could appeal with full security to these imagined "higher powers," and thus has he been enabled to expel a society so useful to the veterinary pupil, and so improving in its character and tendency, from the sanctioning walls of the College.

With respect to Mr. Bracy Clark, the unintentional cause of this measure of ejection, that gentleman may fairly be congratulated on the unequivocal manifestation in his favour which has of late appeared at that institution, into which he led the first horse, and of which he is now the senior veterinarian. The chair was wholly unsought by him, and to fill it could add nothing to his reputation. I am, Sir, yours &c.,

CHARLES CLARK.

Veterinary Infirmary,
Giltspur-street, June 4, 1836.

CASE OF THE CHILD VERONI.

Mr. Benington requests the Editor of The Lancet will give insertion to the case of the child Veroni, in his next publication.
Christ's Hospital, Hertford,
June 8, 1836.

April 12. Ten o'clock p.m. Countenance much loaded; lips of a dusky hue; skin cool; pulse 120, full, and strong; very urgent dyspnœa; cough; tongue covered with a yellow fur. Complains of a tightness across the chest. *Auscultation.* Right lung. Free and loud respiration beneath the clavicle, and in the axilla; less free above and below the mamma, accompanied with crepitation; indistinct, with some crepitation below. Left lung. Auscultation corresponds with that of the right, except that the lower lobe admits more air, and the crepitation is more distinct. Behind. Above the spine of the scapula on each side respiration accompanied with crepitation; becoming indistinct, and quite lost below.

V.S. ʒvi. *Antim. Tart.* gr. iss statim.

The bleeding did not produce faintness, or change the character of pulse for more than a few minutes; breathes with more freedom.

Vini Antim. Tart. ʒi; *Mist. Salinæ* ʒi; 2ndis hor.

13. Aspect still loaded, and dyspnœa urgent, with cough; pulse 120, full, and strong; skin hot and dry; tongue moist, but loaded; conjunctivæ yellow; one scanty stool. *Auscultation.* No improvement in the state of the lungs.

Balneum. Hirudines viij.

Leeches bled profusely in the bath; pulse not materially altered; once complained of faintness; assisted himself out of the bath, not appearing at all reduced by it. Pt. *Vini Antim. Tart.* 2nd hor. *Hydrarg. Submur.* gr. vj statim.

Three o'clock p.m. Breathing very difficult; skin hot and dry; pulse seems to gain in power; one scanty stool.

Hydrarg. Submur. gr. iij statim; *Antim. Tart.* gr ¼; 2ndis hor.

Six p.m. Has vomited freely, and passed a copious dark-coloured stool; breathing relieved; pulse reduced in power; aspect clearer. *Auscultation.* The whole of the left lung in front admits air, but with crepitation from the mamma downwards. Right lung. Feeble respiration, with crepitation in the lower part; about the mamma more free; free and loud above the mamma.

Eight o'clock p.m. Asleep; breathing easy; profuse perspiration.

14. Breathing less free; hot and flushed; pulse increased in power. *Antim. Tart.* gr. ½ om. h.

Eight p.m. Perspiration; pulse 120, soft; breathing accompanied with wheezing; cough frequent, loose. *Emp. Lyttæ sterno.*

15. Breathing difficult; hot and flushed; pulse strong and full. *Auscultation.* Left lung. Scanty admission of air below the mamma; above, air passes with large and loose crepitation. Right lung. Respiration, with crepitation above the mamma; below indistinct, and gradually lost. *C. C.* ʒv.

Very low and faint; pulse small and feeble; temperature of the limbs failing; warmth applied to the extremities; warm milk, gruel, and subsequently strong broth, to be given at intervals; rallied in less than an hour; breathing easy, and inclined to sleep.

4 p.m. Breathing quick: skin hot; pulse 120, with considerable power; heart striking the walls of the chest with a sharp jerk.

7. Heart beats as before, but with a thrilling sound; pulse 125, sharp; breathing quick.

Hydrarg. Submur. gr. ½; *Pulv. Scillæ, Pulv. Tragacanth.*, gr. iij; 3tiis hor.

16. Breathing quick; skin warm and moist; pulse 125, small; passed a quantity of limpid urine. *Auscultation.* Heart acts with less impulse, but with a loud sound resembling a bruissement. Left lung: below, respiration distinct, with crepitation; upper half of the lung freely admits air, but with some crepitation occasionally. Right lung: upper half quite free; below air less freely admitted.

Ammon. Subcarb. gr. iiss; *Mist. Camph.* ʒss. 3tiis h. Rept. pulveris.

4 p.m. Breathing more natural; aspect good; pulse 115, soft, small; seems cheerful, and takes his nourishment.

6 p.m. Whilst taking nourishment a fit of coughing came on, he fell back in his bed and died.

Note.—In this case the effusion which took place into the pericardium, resulted not from pericarditis, but from long-continued excitement in the action of the heart, and I did not think that with prudent management it would interfere with his recovery. He was a very excitable and impetuous child, and had been very strongly affected previously by a visit from his father, and being aware of the essential importance of keeping the child quiet, I recommended Mr. Veroni to abstain from an interview.

CHRIST'S HOSPITAL.—REPLY OF MR. BENINGTON TO MR. VERONI.

The following are the passages which want of space obliged us to omit in publishing the letter of Mr. Benington last week, at page 351:—

In the memorial addressed to the Governors, Mr. Veroni stated his conviction that the want of care, and ill-treatment experienced

by his son on the part of the establishment generally, occasioned his illness; and that his death more immediately resulted from the neglect and brutal usage of the surgeon, as well as from his want of medical skill. He was dissatisfied with the result of the inquest, as, through an understanding between the coroner and the steward and surgeon, attempts were first made to avoid the inquiry, which was then hurried on to prevent him from obtaining aid from town to prosecute it satisfactorily; and that, through similar means, a jury of partial and interested men were collected for the purpose of securing a verdict in favour of the accused party. Thus defeated in his object, he prayed a further inquiry into his case; and he declared that he was influenced by no other motive than that of justice to his son, and a desire of protecting others from similar evils; and that he entertained no feeling of revenge. After some details tending to prove ill-usage and want of care towards the child previous to his illness, Mr. Veroni related my conduct towards him and the child, on the 2nd and 3rd of April. He then said that I had resisted his demand to see his child on the evening of the 15th of April, and that I persisted in so resisting him on the 16th, notwithstanding his declared disregard of my representations that the interview would be unsafe to the child; and he added that it was clear that I had perpetrated some act of brutality, and then prevented an interview, from a fear that the child should make disclosures to the father respecting it. Mr. Veroni next accused me with employing means contrary to the established usage of medical practice, to the injury of his child, which was, he said, proved by the statement of his own medical witness, who had deposed that the state of the internal organs, showed that there had been excessive loss of blood, and that death had ensued in consequence. He then charged me with negligent attendance, and with having been absent from my duties from the evening of the 15th until noon the next day. These charges having been considered, Mr. Veroni informed the Committee that he had a charge of drunkenness to prefer against me; that on the 2nd and 3rd of April he considered, from my appearance and behaviour, that I was a person addicted to intemperance, and that I was then under the influence of liquor; that on the evening before the child's death, I apparently was so, and that having made an engagement to meet him at nine the following morning, and not arriving until twelve, he considered that over-indulgence in drinking had prevented my attendance at the appointed hour.

It is impossible to avoid remarking the contrast between these charges contained in the memorial actually read before me by Mr. Veroni, and the copy of the memorial published in THE LANCET. In the latter the memorialist states that the facts have been attested on oath before a Coroner's jury. Now the more important statements made in the published copy, were never alluded to in the depositions made before the Coroner; and in other instances the assertion of the memorialist is contradicted, either by his own sworn statements, or by those of other witnesses on the inquest.

WESTMINSTER HOSPITAL.

THE active triumvirate at this hospital, Doctor Hallett, Doctor Wood, and Nurse Freeman, are not unknown to the readers of THE LANCET. We have latterly, however, left them to the quiet enjoyment of their powers, not having once interfered with their proceedings since the time when these very competent judges gave a certificate of *medical* fitness to a former candidate for the office of apothecary, whom they afterwards most unceremoniously cast out from his situation for alleged deficiencies in the very qualities which they had certified him to possess. But the trio have never ceased to peddle with the regulations of the hospital. Still do they constitute the legislatorial Cerberus of the institution,

> Cerberus hæc ingens *latratu regna trifauci*
> Personat.

The tricipital has recently been occupied in remodelling the whole code of regulations. Some few improvements have been effected; the Weekly Board, for instance, has been superseded by a representative committee, who are responsible to a quarterly meeting of the governors. This arrangement was recommended some years since in a number of THE LANCET. Many others of the regulations are very inconvenient, and indicate in the projectors a total ignorance of hospital business.

The institution has always been exposed to two abuses, the one on the part of the governors, the other on the part of the medical officers. Many people subscribe in order to provide medical attendance for their servants at a cheap rate, thus depriving the general practitioner of his just occupation and remuneration. For instance, a payment of three guineas per annum entitles the subscriber to send to the hospital three in-patients and six out-patients. If every subscriber were to use his privilege, the funds of a year would be expended in three months; but the distant governors make no use of their privileges, and those who reside near the building are consequently enabled to inundate the wards with their menials and dependants. The medical men are also not entirely innocent of the charge of consulting their own interests at the expense of

the charity, by procuring admission for the servants and employés of their patients. The balance of abuse, however, must in truth be said greatly to preponderate on the side of the governors. A regulation has been framed to correct the abuse on the part of the medical department, but no precaution has been taken against the imposition of the subscribers. The committee, who are of course nominees of the trio, meet weekly, on Tuesdays, and the purport of the above cited regulation is to limit as far as possible the admission of patients to that day. To secure this they require that whoever of the medical functionaries admits a patient in the interim, shall sign a certificate declaring that such a step *is necessary to the preservation of life*. A moment's consideration will evidence to any one that it is impossible to limit the casualties of illness to any particular day, and that the wording of the regulation is perfectly absurd, and its tendency inconsistent with the *avowed* purposes of the institution. Many cases of which, though the postponement of admission could not absolutely be said to endanger life, may yet be materially altered for the worse by the neglect of immediate treatment; and the malady which might have been removed in a few days may thus ultimately be made to occupy a month.

The Committee in this instance evidently mistake their duty; they are not *prospectively* to admit patients, but to review the admissions of the previous week, and ascertain that, *in all respects*, the patients taken in have been such as were contemplated by the benevolent founders of the institution. Of the abuses, however, more anon. We have at present some cases to occupy our space.

CASES OF RHEUMATISM TREATED WITH HYDRIODATE OF POTASS.

Case 1.—Anne Wheeler, æt. 25, admitted May 24th, 1836, under Dr. Roe. She has great pain in all the joints; tongue loaded; pulse 120, hard and full; skin hot and dry; face flushed; pain in the right side, and difficulty of breathing. Has had no appetite for the last three weeks, and complains of continual and urgent thirst. The wrist-joints especially are much swollen, and painful to the touch. The pains in the joints have been so acute for the last three or four days as to prevent her sleeping.

About *five* weeks ago she was exposed to wet weather, and had a slight catarrh of which no notice was taken, and a fortnight after she was suddenly seized with pain in the wrists and ankles; in a few days afterwards the pain became general, and continued so till her admission. To take an ounce of *Castor Oil* immediately, and ten grains of *Dover's Powder* at night.

25. The pulse this morning is 130; the tongue covered with a brown fur, but moist; the bowels open from the castor oil; the pain about the wrists worse. Take of *Carbonate of Potass* two drachms; of *Hydriodate of Potass* two scruples; *Simple Sirup* half an ounce; *Camphor Julep* half a pint. Mix, and let the patient take an ounce three times a day.

26. Is freer from pain; she slept well last night; the medicine has produced a little nausea; the skin not so pungently hot and dry as before; pulse 123. She is to continue the mixture.

27. The swelling of the wrists has somewhat diminished, and she declares that she feels in every way improved.

30. The patient complains of severe headache; her sleep also is disturbed by frightful dreams; bowels well acted upon; pulse 98; the tumefaction of the wrists and fingers has almost entirely subsided.

June 4. The patient is perfectly convalescent; no pain or tumefaction; general health all but restored.

Case 2.—James Cherry, æt. 29, was admitted under Dr. Roe, May 17th. He complained of *rheumatic* pain of the right knee, the left ankle, and in the muscles of the right side of the body (and it is singular that patients generally give to these pains their right designation). He has pain in the epigastrium, which is increased by pressure. Everything taken into the stomach nauseates him, and he is much purged. His stools are of a dark-green colour. His urine is scanty and high-coloured. The wrist of the left hand is in a high degree painful and tumefied. His skin quite cool and moist; the tongue is slightly furred; pulse 120, hard and full; appetite good; face very much flushed; his eyes glisten with uncommon brilliancy, and he has the appearance of a man intoxicated. He had been in the hospital for about eight months before, with rheumatism and colic, synchronously. He attributes his late attack to having got his feet wet a few days previous to admission. Take of *Jalap*, in powder, 25 grains; *Wine of Meadow-Saffron* half a drachm; *Tincture of Henbane*, half a drachm; *Camphor Julep* ten drachms. Mix, and form a draught to be taken directly.

18. The patient is much the same. The draught had no effect upon the bowels. To take a strong aperient of salts and senna immediately, and the following mixture.—Take of *Hydriodate of Potass* a drachm and a half; *Carbonate of Potass* two drachms; *Water* eight ounces. Mix; an ounce to be taken for a dose three times a day. Hot fomentations to be applied to the hand.

25. He is a great deal better, having continued the hydriodate since the last notation. The swelling of the hand has very much abated. Pursuant to his own request

a poultice of linseed-meal and vinegar was applied to the hand to-day.

29. Still continues the medicine; the symptoms evanescing, and the tumefaction gone.

June 4. The man is in all respects well.

Case 3.—Mary Levi, ætatis 25, admitted March 22, 1836, under Dr. John Bright, the senior physician. She complains of great pain in the scapular muscles, and in the shoulder-joints, extending to the muscles of the neck and thorax. Great heat of skin, face flushed; tongue coated with a white fur; pulse 104, full and hard. The pains are greater towards evening, and the fever grows more violent. About four months ago she caught a severe cold, from which period she dates her present sufferings. She is ordered to take the hydriodate of potass, exactly as prescribed for the antecedent patients, three times a day.

25. The shoulder is this morning the principal seat of pain, the other parts are comparatively but slightly affected; pulse 102; heat of skin pungent, and augmented since yesterday.

April 12. The patient, under the influence of the hydriodate, with the addition of colchicum, steadily improved, and to-day she goes out well.

Case 4.—Joseph Fitkin, æt. 16, admitted March 29, 1836, under Dr. Hamilton Roe. He complains of pain in all the joints. He has cough; he is much emaciated; his face is flushed; skin is hot and dry; pain in the thorax; oppressive sense of weakness. Is apprenticed to a boat-builder, and in performance of his duty was frequently accustomed to get wet and continue so. Has had severe rheumatic pain for a week before admission; the pulse 108, hard and full; the tongue covered with a white fur. Ordered to take the *Mistura Hydriodatis Potassæ*.

April 2. Is much better to-day. The feverish symptoms are rapidly subsiding.

4. Is now able to walk about the ward, and has but very little pain, and all the pyrexial symptoms have vanished.

12. Has continued the regular use of his medicine, and is this day discharged well.

NORTH-LONDON HOSPITAL.

CUT THROAT.

William Sach, ætat. 32, was admitted on the evening of Tuesday, May 24, 1836, under the care of Mr. Cooper, at about half-past six o'clock. He had attempted to destroy himself by cutting his throat half an hour before his admission to the hospital, whither he was sent by Dr. David Burnes, of Vernon Place, Bloomsbury Square. The previous history of the case is given by Dr. Burnes, in an account which he particularly wishes us to insert:—"At about twenty minutes past six, on Tuesday evening, I was summoned suddenly to a man in a stable yard in King Street, about sixty yards from my own door, lying on his back on a dung-heap, with a transverse wound, four inches in length, across the superior part of the throat. Having sponged the wound, which was bleeding freely, the man looking up apparently sensible, I discovered that the trachea, or rather the larynx, was completely severed, and gaping, and also that the pharynx was so much injured or collapsed, that on examining it my fingers touched the posterior wall, and anterior aspect of the vertebræ, but not one vessel presented itself requiring a ligature. A general oozing of blood, and its occasional collection in the lower part of the divided larynx, induced a kind of convulsive coughing, when the blood was ejected with great force, and he then became comparatively quiet. Having signified his wish to write, a card and pencil were given him; I allowed him however to write only a very few words, and then sent him to the hospital by the police on a stretcher, *the man himself assisting* in the arrangement, folding his coat, and placing it as a pillow beneath his head. At the hospital he again wished to write, and here he wrote that he was 'out of place, a post-boy,' and gave his name and address, and some other particulars."

When received into the hospital, the following was the state of the patient.

The muscles in front of the neck were severed completely; the sterno mastoid only in part. The incision had cut through the middle of the thyroid cartilage immediately above the rima glottidis. The upper part of the thyroid cartilage, together with the epiglottis, had been retracted upwards, together with the os hyoides and root of the tongue. The pharynx was completely laid open. The trachea was considerably retracted downwards towards the chest, falling under cover of the divided integument. The man had lost a considerable quantity of blood before his admission, but no vessel could be discovered which might have furnished the hemorrhage. For some time after his admission considerable oozing of blood continued, chiefly of a venous hue, and coming from the upper part of the wound. The blood getting into the trachea, caused very great dyspnœa, so great at times as to threaten immediate suffocation. Relief was afforded by violent fits of expiration, during which the frothy blood was expelled with very great force. The trachea was held forwards by a hook fixed in one of its cartilages, whilst the blood was carefully sponged away as it collected in the bottom of the wound. The difficulty of respiration

became more constant, owing to the infiltration of blood into the submucous cellular tissue surrounding the margin of the glottis. The carotid arteries were seen exposed and pulsating deep in the lateral part of the wound.

Late in the evening, when the oozing of blood had subsided, the trachea was maintained in its natural position by passing a suture through the cartilage on each side, and fixing it to a bandage applied round the back of the neck, and beneath the axillæ. The man was placed on his side, and soon fell asleep. It may be mentioned that, up to the time of the infliction of the wound, he had been under the care of a medical gentleman for symptoms of delirium tremens, and that opium had been administered with the view of relieving that affection.

May 25. Has passed a pretty quiet night. Pulse 96. Countenance favourable. Allays his thirst by sucking a sponge dipped in water acidulated with orange or lemon-juice. An attempt was made to loosen the ligatures which held forwards the trachea, but he would not allow it to be done, as great dyspnœa was immediately induced by the retraction of the respiratory tube. A purgative enema was thrown up, which was followed by a copious alvine evacuation.

26. Has been rather restless during the night, but appears pretty comfortable at present. Pulse 108. Free discharge of mucus and saliva from the upper part of the wound, which, if not quickly removed by the sponge, gets into and clogs the trachea, causing very great difficulty of respiration. Takes some milk-and-water by the mouth, but it comes away immediately, through the wound. To-day a quart of milk with eggs were thrown into the stomach by the stomach-pump, the tube of which was introduced into the œsophagus by the wound. Another enema given at his own request, with relief.

28. Going on well. Is fed by the wound as before. Sutures were removed. Trachea remains in its place. Suffers difficulty of breathing from mucus dropping down upon the glottis. This he clears away by coughing. To effect this he sits up in bed, and places a folded towel over the wound, and then makes a very forcible expiration which drives the mucus before it, and it is entangled and brought away in the folds of the cloth. He sleeps with the wound widely opened, and makes a snoring noise, evidently with the glottis. As the surfaces of the wound are putting on a sloughy appearance, Mr. Cooper recommended some wine to be added to the beef-tea and milk which are given to him.

May 31. Continues to go on favourably; several sloughs removed by the scissors from the upper part of the wound. The parts are daily becoming more reconciled to their unnatural situation. The man drinks copiously of tea, and milk-and-water. When he does this, he sits up in his bed, and has a basin held before him, and over this he inclines his head, so that the fluid he drinks may not soil his linen, as it escapes in a stream through the wound. He is fed, as before, by means of the stomach-pump introduced by the wound. He expresses himself in writing, as feeling very weak and low. He will not allow anything, not even gauze, to be placed over the wound. When the finger is introduced through the wound, and directed upwards into the mouth, so as to touch the epiglottis, a violent fit of coughing is excited. This effect is not produced when the finger is placed upon the rima glottidis.

ECTHYMA SYPHILITICA, OCCURRING WITHOUT ANY PRIMARY SYMPTOMS, FROM INOCULATION BY A CHILD.

A. F., aged 24, was admitted, May 4, 1836, under the care of Dr. A. T. Thomson. She is a servant of all work; twelve months ago had a child. In the beginning of June last was engaged as a wet nurse by a French lady. She has remained with her ever since—until the present time. The lady said she was married, but there was no reason to suppose this was fact, no gentleman living with her, or coming to her house. The lady at present has an eruption covering the whole of her back, consisting of brown spots covered with scales. She told the girl that two years ago she (the lady) had an eruption similar to the one the girl has now. The child was born in March, and had an eruption at the time the girl began to nurse it. The eruption was chiefly about the thighs and nates, and consisted of spots with "mattery heads;" it is now better, and looks like ringworm, is in large circles, and is scaly; fresh spots are continually breaking out. In January or February the child had a sore under the lip, "all one mass of matter; it was cracked also, and bled." The child had no sore throat. The medical attendant, Mr. Bryant, an old student of the University, and constantly in the habit of seeing syphilitic eruptions in the hospital, considered it syphilitic, and of the same nature as that the girl has at present. One night the child bit the breast below the nipple, and abraded the skin by the bite. In the course of two or three days this grew into a pimple, at first about the size of a pin's head, containing matter; this increased until it burst; she can give no accurate account of the size it attained before bursting, so that it is not clear whether it was a small abscess or a pustule; but the latter seems likely, for it burst in two or three days from the time it was bit. The base was red and hard. A few days after this burst, an eruption began to appear on the skin of the legs, arms, breast, and a

little on the face. It appeared in the form of pimples, containing a little matter, and afterwards becoming scaly. From what is to be seen now, the eruption commenced as a very small and circumscribed pustule, which increased into a psydraceous pustule; this bursts, and a scab is formed upon it; this again is succeeded by a scaly covering; when that separates, a dark-brown, circular or oval spot is left, which is at first hard, but the hardness disappears after a time. Some do not burst, but dry away, the scales forming as the matter disappears. Has not, and never had, any sore throat, pain in the limbs, ophthalmia, or any other secondary symptoms of syphilis. She denies, in whatever way the question is put, having had any primary venereal disease. Never had any discharge from the vagina, nor any sores or bubo. Has never had leucorrhœa, except for a *very short time* after menstruation,—never continuously. The following medicine was ordered:—*Biniodide of Mercury*, a quarter of a grain; *Extract of Opium*, 1 grain; in a pill every night at bedtime; *Hydriodate of Potash*, and *Hydriodate of Iron*, of each three grains, in two ounces of the simple infusion of gentian three times a day. Milk diet.

6. The mercury was increased to half-grain doses, and the potash to five-grain doses.

9. Still improving; increase the dose of the hydriodate of potash to five grains. Continue the pills.

June 1. Since last report, has been improving very satisfactorily. The dose of the mercury has been slightly increased. She is almost fit to leave the hospital.

In lecturing on the case, Dr. THOMSON observed that in this species of syphilitic eruption the pustules are always distinct, not often very numerous, and generally on the legs; the fluid contained in them being a sero-purulent matter of a grayish colour, they are surrounded by a livid copper-coloured areola, the crusts are scaly, and very adherent; sometimes, but not frequently, ulceration occurs. This species of ecthyma is more violet-coloured than other eruptions of the syphilitic character, and is often accompanied with other secondary symptoms, such as sore throat, iritis, or periostitis. This disease was generally found in infants; this was an instance of inoculation by the saliva. Professor WALLACE, of Dublin, had recorded a similar case. He (Dr. T.) was inclined to give the mercury as in the above formula, though Mr. CARMICHAEL thought it unnecessary in such cases. He (Dr. T.) had never found antimony, sarsaparilla, or the other remedies recommended, so beneficial. The hydriodates he had employed would improve the tone of the system, while the alterative influence of the hyd. of potash would be exerted on the secreting organs.

In the INTERCEPTED LETTER which was published in THE LANCET of April 16, there were printed in the first column of page 122, the following sentences:

"At that time Dr. BADHAM, with his Balm of Gilead, enjoyed much more professional fame than even such men as the great Dr. WARREN, or any other physician in London. Badham was only an illiterate adventurer, and nothing tended to diminish the value of Scotch degrees more than their selling one to him, and letting him become a Member of the Royal College of Physicians of Edinburgh."

The professional reader will instantly perceive that the remark refers to the notorious quack BRODUUM, and that the name BADHAM was a misprint. We make this acknowledgment and correction of the error unhesitatingly, and with pleasure, because we regret to find that the false reading by the compositor, of the bad and sometimes illegible manuscript of the intercepted letter, has been productive of pain in a quarter to which not the remotest reference was intended to be made.

CORRESPONDENTS.

The letter of *A Member of the Irish College of Surgeons* addressed to the Lord Lieutenant of Ireland, in consequence of his Excellency's visit to the College on the 3rd instant, shall be inserted in the next LANCET.

Vindex.—Information respecting affairs in that capital will always be acceptable, but the present communication we do not use, because the semblance does not seem to us to be close enough, or precisely characteristic of the parties. These things require the utmost tact and the greatest nicety in the handling, which practice alone can ensure. Statements of facts, assembled with great care, expressed with marked exactness, and told without exaggeration of style, we shall be glad to receive.

The letters of *Dr. Inglis* and *J. D. P.* came too late for notice this week.

Mr. John James (or Jones).—What price will our correspondent name?

The inquirers respecting the fourth part of Dr. Copland's Dictionary are referred to the letter of Dr. Copland at page 249 of the number of THE LANCET for May 14, last.

An Army Surgeon. Yes, if the party practises as an apothecary. The conditions stated afford him no protection in such a case.

Is the MS. communication respecting the Birmingham School, signed by Mr. Wm. Sands Cox, forwarded for insertion as an advertisement?